DOCUMENT RESUME

ED 205 775 CE 029 787

AUTHOR Reardon, Robert C.
TITLE Developing Career Education at the College Level. Information Series No. 227.
INSTITUTION ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, Ohio.
SPONS AGENCY National Inst. of Education (ED), Washington, D.C.
PUB DATE 81
CONTRACT 400-76-0122
NOTE 51p.
AVAILABLE FROM National Center Publications, The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Rd., Columbus, OH 43210 ($3.80).

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Career Development; *Career Education; *Colleges; *Demonstration Programs; Educational History; Educational Needs; Experimental Programs; Federal Programs; Higher Education; Postsecondary Education; Program Descriptions; *Program Development; *Program Improvement

ABSTRACT

Designed for the practitioner, this paper presents a review of the literature on postsecondary career education. The paper begins with an overview of the history and present context for postsecondary career education, including a review of the pressing needs of postsecondary schools, a description of some of the issues and problems facing postsecondary career education, and review of management strategies for delivering career education. The next section includes a summary of the state of the art in postsecondary career education, including prior model development and the evaluation of selected career education program elements. More than fifteen topics about postsecondary career education are explored. Section 3 summarizes practical implications of the preceeding literature review, and discusses some of the persistent issues and their implications for practitioners. The final sections include a brief summary and a listing of bibliographic references and other resources. (LRA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED205775

Information Series No. 227

DEVELOPING CAREER EDUCATION AT THE COLLEGE LEVEL

by

Robert C. Reardon
The Florida State University

CE 029 787

The ERIC Clearinghouse on Adult, Career, and Vocational Education
The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

1981

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

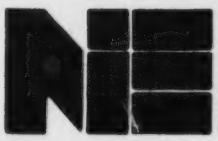
THE NATIONAL CENTER MISSION STATEMENT

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Providing information for national planning and policy
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

FUNDING INFORMATION

Project Title:	ERIC Clearinghouse on Adult, Career, and Vocational Education
Contract Number	NIE-C-400-76-0122
Educational Act Under Which the Funds were Administered:	41 USC 252 (15) and PL 92-318
Source of Contract:	U.S. Department of Education National Institute of Education Washington, D.C.
Contractor:	The National Center for Research in Vocational Education The Ohio State University Columbus, Ohio 43210
Executive Director:	Robert E. Taylor
Disclaimer:	This publication was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Education. Contractors undertaking such projects under government sponsorship are encouraged to freely express their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official National Institute of Education position or policy.
Discrimination Prohibited:	Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal assistance." The ERIC Clearinghouse project, like every program or activity receiving financial assistance from the U.S. Department of Education, must comply with these laws.



This publication was prepared with funding from the National Institute of Education, U.S. Department of Education, under Contract No. NIE-C-400-76-0122. The opinions expressed in this report do not necessarily reflect the position or policies of NIE or the Department of Education.

CONTENTS

Page

FOREWORD vii

PREFACE ix

EXECUTIVE SUMMARY xi

OVERVIEW 1

- Historical Perspective 1
- Career Education 2
- Postsecondary Education 4
- Needs and Problems 4
- Unresolved Issues 5
- Summary 7

SUMMARY OF KNOWLEDGE 9

- Some Propositions 9
- Comprehensive Models 11
- Other Models 15
- Target Populations 16
- Delivery Systems 18
- Program Management and Organization 22

IMPLICATIONS FOR PRACTICE 23

- Summary 28

CONCLUSIONS 31

REFERENCES 33

LIST OF FIGURES

Figure

1. Examples of a Total Career Development Approach 14

FOREWORD

The Educational Resources Information Center Clearinghouse on Adult, Career, and Vocational Education (ERIC/ACVE) is one of sixteen clearinghouses in a nationwide information system that is funded by the National Institute of Education. One of the functions of the Clearinghouse is to interpret the literature that is entered into the ERIC data base. This paper will be of interest to career education practitioners as well as administrators in higher education settings including colleges, community colleges, postsecondary technical institutes and universities.

The profession is indebted to Robert C. Reardon for his scholarship in the preparation of this paper. Recognition is also due Daniel W. Behring, Alma College; Joseph Johnston, University of Missouri-Columbia; and Linda Pfister, the National Center for Research in Vocational Education, for their critical review of the manuscript prior to its final revision and publication. Susan Imel, Assistant Director at the ERIC Clearinghouse on Adult, Career, and Vocational Education, coordinated the publication's development.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

PREFACE

The request to review the literature on postsecondary career education, especially oriented to the needs and interests of practitioners, provided me with an opportunity to organize some of my thoughts, review an extensive body of literature, and share some personal biases. But this professional opportunity also presented some obstacles, and my scholarly self had a difficult time persuading my practitioner self to step back from the daily bustle and think, read, and ponder the topic. I have approached this task as a practitioner-scholar—one who has directed a university career center for nine years and who has also served as a faculty member teaching courses and directing research in the career area.

There are numerous definitions of career education; the operational definition used in this paper includes the broad range of activities designed to prepare postsecondary students for work (including unpaid work and leisure). The activities would ideally include faculty, the teaching-learning process, and collaborative efforts of both school and community (business/labor/industry/government/alumni/parents).

This paper begins with an overview of the history and present context for postsecondary career education including a review of the pressing needs of postsecondary schools, a description of some of the issues and problems facing postsecondary career education, and review of management strategies for delivering career education.

The next section includes a summary of the state of the art in postsecondary career education, including prior model development and the evaluation of selected career education program elements. More than fifteen topics about postsecondary career education are explored in this section.

The third section summarizes practical implications of the preceding literature review, and then refocuses on some of the more persistent issues in the field and their implications for practitioners.

The final sections of the paper include a brief summary of the entire contents and a listing of bibliographic references and other resources. This listing is designed to help scholar-practitioners utilize relevant data as they seek further understandings of vocational behavior and the most effective interventions to enhance that behavior.

The reader should note that hundreds of additional references could have been cited in this review, and hundreds of pages of text could have been added to further describe or explain the material cited in this paper. My goal has been only to spotlight some of the most relevant work and to briefly speculate on the future. There is much still to be reviewed, learned, and written about career education in postsecondary institutions, and I hope others will attempt to move us further in this direction.

R. R.
Tallahassee, Florida
June 1981

EXECUTIVE SUMMARY

Designed for the practitioner, this paper presents a review of the literature on postsecondary career education. The paper begins with an overview of the history and present context for postsecondary career education including a review of the pressing needs of postsecondary schools, a description of some of the issues and problems facing postsecondary career education, and review of management strategies for delivering career education. The next section includes a summary of the state of the art in postsecondary career education, including prior model development and the evaluation of selected career education program elements. More than fifteen topics about postsecondary career education are explored. Section 3 summarizes practical implications of the preceding literature review, and discusses some of the persistent issues and their implications for practitioners. The final sections include a brief summary and a listing of bibliographic references and other resources. (LRA)

Literature relating to the topic of postsecondary career education can be found in the ERIC system under the following descriptors: *Career Education; Postsecondary Education; Program Descriptions; *Program Improvement; Program Development; Federal Programs; Higher Education; *Demonstration Programs; Experimental Programs; Career Development. Asterisks indicate descriptors having particular relevance.

OVERVIEW

Historical Perspective

American colleges and universities have been preparing students for work-related roles from their very beginning. In order to obtain a clearer understanding of the present and future possibilities of postsecondary career education, it is important to review some of the critical elements in the historical, political, educational, and social context of postsecondary career education.

Although many of the present career education initiatives originated with the speech given by U.S. Commissioner of Education Sidney Marland on January 23, 1971 to the annual gathering of the National Association of Secondary School Principals in Houston, the origins of career education run much deeper. In a paper appearing in the *College Board Review*, "The Roots of Career Education," Edwin Herr (1977, p. 7) noted that career education is a movement with a past: "It encompasses many concepts and practices long apparent on the American educational landscape. The criticism or skeptism which career education has engendered is at least partially a residual of issues and debates which have never been fully resolved in American educational history." Herr observed that there has always been a vocational theme in American education. Benjamin Franklin, for example, advocated an education that had pragmatic and utilitarian purposes and would develop personal qualities necessary for success in business and professions. Much later, John Dewey also supported an integrated education experience "in which learning and social application, ideas and practice, work and the recognition of the meaning of what is done, are united from the beginning and for all" (Dewey 1915, p. 316). In addition, Herr noted that vocational education itself has evolved from an earlier emphasis on employer training needs to an emphasis on development of marketable skills needed by persons to ensure their welfare, and that vocational guidance has evolved from a movement to help the unemployed obtain jobs to a process of facilitating self-growth as a basis of evaluating educational and occupational alternatives. Herr concluded that these three historical developments are the tap roots of the present career education movement.

Herr (1977) also observed that there are several contemporary sources of social influence on career education. First, the democratization of opportunity brought about by such things as affirmative action programs and the removal of sex role job stereotypes has forced individuals to increasingly define who they are, what life goals they want to set, and to take personal responsibility for implementing those goals. Second, an information overload has occurred because of rapid technological and social change, which is constantly communicated by the mass media, schools, and peers. Persons seem to be having increasing difficulty in processing this mass of data about jobs, outlooks, and training requirements, and in making useful life/career decisions. And third, shifts in the occupational structure brought about by automation, inflation, and specialization are requiring many persons to become retrained or more highly trained. Such changes are forcing many persons, including adults, to reassess their work and self-attitudes and to engage repeatedly in assorted transitions between work and education.

Given this brief historical and contemporary perspective on career education, it is appropriate to move into analyzing the important concepts of primary concern in this paper: career education and postsecondary education.

Career Education

The career education concept has experienced definitional problems from the beginning. Marland (1974) was initially reluctant to define the term because he "held that the concept needed much national debate, much research, much scientific analysis, much testing of assumptions in real schools and classrooms before it could be given a dependable definition" (p. 84). The first official definition of the concept appeared in a 1974 U. S. Office of Education policy statement on career education: "Career Education is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living" (Hoyt 1974). Three years later when the Career Education Incentive Act (Public Law 95-207) was passed by the 95th Congress, career education was defined to mean "the totality of experiences, which are designed to be free of bias and stereotyping (including bias or stereotyping on account of race, sex, age, economic status or handicap), through which one learns about, and prepares to engage in, work as a part of his or her way of living, and through which he or she relates work values to other life roles and choices (such as family life). . . ." It was further noted that career education "shall be limited to activities involving career awareness, exploration, decision-making, and planning, which activities are free of or are designed to eliminate bias or stereotyping (including bias or stereotyping on account of race, sex, age, economic status, or handicap), and shall not include any activities carried out by such agencies involving specific job skill training" (P.L. 95-207, Dec. 13, 1977).

Controversy about the definition of the career education concept has focused on several points, however. Hansen (1977), in a paper prepared for the National Advisory Council for Career Education (NACCE), reviewed and critiqued a score of career education definitions. She noted that limitations of the official U.S. Office of Education (USOE) definition included too much emphasis on work and the economic role, a neglect of career development theory, and a lack of focus on the lifelong self-development process of the individual. She reviewed other definitions that corrected for these perceived limitations.

In a similar vein, Hoyt (1977) has sought to differentiate among the concepts of career education, vocational education, career guidance, and career development. He noted that vocational education, in contrast to career education, represents a particular body of knowledge designed to provide students with job entry skills, is targeted for a limited student subpopulation, focuses on paid work, is taught by specialized teachers, and focuses on specific vocational skills rather than general career skills, e.g., communication, critical thinking. In this sense, vocational education and English education are similarly distinct from career education. Hoyt views career guidance as a set of services, e.g., counseling, assessment, information, placement, directed by a professional counselor to facilitate the career development process. Career education also seeks to influence career development, which is viewed as a conceptual model to describe the lifelong developmental process through which persons develop a capacity for and engage in work as a part of their total lifestyle. The career development concept may be viewed as a part of human growth and development.

The notion of preparation for work is essential to an understanding of career education. Work is defined as "conscious efforts, other than that involved in activities whose primary purpose is either coping or relaxation, aimed at producing benefits for oneself and/or for oneself and others" (Hoyt 1974, p. 3). This definition includes both paid and unpaid work, and addresses

a societal need for economic productivity as well as the broader aspects of creating value in one's personal life, including leisure. This broad conceptualization of work is imbedded in the career education concept. Enlightened use of *work* in this sense can help to counter the apprehension that career education is narrow, specific job oriented, or just another name for vocational education. As the language of the law and these official definitions explain, career education is related to, but more than, vocational education.

The terms *infusion* and *collaboration* have been important in the efforts to operationalize the career education concept. Infusion has been used typically to focus on reform of the teaching-learning process to implement the career education concept. Classroom instructors incorporate career awareness, information, and decision making into the curriculum and learning activities. The word collaboration includes the active partnership of community organizations, alumni, business and government leaders, parents, and others with educators in operationalizing the career education concept for learners. The notions of infusion and collaboration clearly specify educational reform—the bringing together of the total education-work systems for the benefit of all learners.

The nine learner outcomes for career education specify what any individuals leaving school, including adults, would obtain from such an educational experience (Hoyt 1974, p. II). These learner outcomes define the goals of career education operationally. Learners who have achieved these outcomes are—

1. competent in the basic academic skills required for adaptability in our rapidly changing society;

2. equipped with good work habits;

3. capable of choosing and who have chosen a personally meaningful set of work values that foster in them a desire to work;

4. equipped with career decision-making skills, job-hunting skills, and job-getting skills;

5. equipped with vocational personal skills at a level that will allow them to gain entry into and attain a degree of success in the occupational society;

6. equipped with career decisions based on the widest possible set of data concerning themselves and their educational vocational opportunities;

7. aware of means available to them for continuing and recurrent education once they have left the formal system of schooling;

8. successful in being placed in a paid occupation, in further education, or in a vocation consistent with their current career education; and

9. successful in incorporating work values into their total personal value structure in such a way that they are able to choose what, for them, is a desirable lifestyle.

There is little in these nine learner outcomes that is not directly relevant to the instructional mission of most postsecondary institutions.

Before moving from this discussion of the career education concept, it is important to note that the implementation of a postsecondary career education program requires more than simply

strengthening the career counseling and guidance program or broadening the function of the career placement office. Adding another career counselor to the staff, purchasing a computer-based career exploration system, or setting up a career information library do not make a career education program. While such efforts would certainly enhance a career development or career guidance program, they do not necessarily involve infusion or collaboration, two necessary components of a career education approach. It takes a much broader, intense, thoughtful institutional commitment to infuse career education concepts into the curriculum and to collaborate with others (employers, alumni, and so forth) outside of the college or university. The position taken in this paper is that infusion and collaboration are distinguishing and necessary elements in postsecondary career education, although other career related interventions (e.g., career development or guidance programs) may be highly desirable, effective, and sufficient to meet the needs of postsecondary institutions.

Postsecondary Education

Finally, it is important to remember the unique tradition of the postsecondary educational institution in the United States and the bearing that it can have on the implementation of career education. Rosen, Olson, and Cox (1977) interviewed 175 persons involved in education-work programs at sixteen postsecondary education sites, talked with forty postsecondary educational practitioners and policymakers, and reviewed descriptive information from more than one hundred institutions. The authors identified six different postsecondary settings: (1) two-year degree programs, (2) four-year colleges/universities, (3) professional schools, (4) urban and rural schools, (5) schools with large and small enrollments, and (6) public and private schools; and six postsecondary education traditions: (1) liberal arts, (2) cooperative education, (3) professional education, (4) experiential education, (5) counseling, and (6) competency-based education. In their analysis the authors did not include continuing education and adult lifelong education programs, although they suggested a separate study of this area. Vocational education was not included either since in the authors' judgment, it did not meet the comprehensiveness criteria. This breakdown of the scope and diversity of the range of programs and institutions included in the concept of postsecondary career education indicates something of the nature of the problem in discussing this topic. Postsecondary career education can mean many different things to different people at different types of institutions.

The diversity of postsecondary education and its uniqueness in comparison to K-12 educational systems was partly responsible for Congress authorizing postsecondary education career demonstration projects in the Career Education Incentive Act (P.L. 95-207). Unfortunately, the $15 million authorized each year for four years (1979-1983) was never appropriated and many of the issues surrounding the most effective ways of implementing postsecondary career education are still unexamined and unresolved.

Needs and Problems

Every postsecondary institution has or can readily develop its own list of learner or program needs and problems to provide a rationale for a career education program. The following list is not intended to be exhaustive, but to illustrate the type and range of needs present at the postsecondary level:

1. Students are reporting an increasing need for assistance with educational-vocational planning, especially for educational and occupational career information.

2. Faculty have needs for inservice training that will help them become better advisors, become aware of new learner skills needed for entry into occupations, and develop new teaching skills utilizing in-school and community resources.

3. Student development support programs need to become better organized to deliver the comprehensive, expanding array of career services now available.

4. Business, industry and government want employable personnel and are increasingly critical of postsecondary education for not helping students develop work skills which relate to the student's career goals, e.g., economic understanding, communications skills, time management skills.

5. A more heterogeneous student body composed of adults, returning women, ethnic minorities, and physically disabled learners is presenting postsecondary institutions with challenges for educational relevance of instruction.

6. Problems related to maintenance of student enrollment have created a need for programs to increase student recruitment and retention.

7 Administrators are aware of the need to build public support for the mission of the institution among such groups as alumni and parents.

8. The apparent conflict between the goals of preparing students for work and the liberal arts tradition presents problems as it emerges in faculty administrative debates about the new vocationalism in postsecondary education.

9. The public demand for accountability may mandate follow-up studies of former graduates.

10. The lack of top level administrative support for implementing a broad-based career education treatment at the postsecondary level needs to be addressed.

11. Although increasing numbers of students view the college experience as preparation for employment, there are predicted to be about one million more college graduates during 1974-1985 than jobs requiring college degrees.

12. Endorsements of and calls for improved education-work programs by various national leaders, professional associations, and learned societies need to be addressed by individual institutions.

This list of needs/problems related to career education at the postsecondary level could be extended, but the foregoing should serve to highlight some of the issues facing these institutions.

Unresolved Issues

Several individuals, commissions, and associations have studied and analyzed the topic of postsecondary career education and noted some of the unresolved issues and problems.

Hoyt (1978, p.10-12), for example, offered ten random thoughts on the paradoxes for career education in higher education.

1. It strikes me as unfortunate that one of the apparent inevitable results of emphasizing the importance of protecting the individual faculty member's right to change rapidly is an increase in the difficulty of obtaining institutional change. It seems paradoxical that, the more we seek to protect the right of the individual faculty member to change, the less likely we are to be able to move toward overall institutional change.

2. It strikes me as paradoxical that, as the evidence mounts demonstrating the intense interest of college students in readying themselves for work, there has been no corresponding rise in interest and/or action on the part of colleges and universities.

3. It seems paradoxical that, on many college campuses today, there exist closer working relationships between staff persons and members of the broader community than between staff persons and members of the teaching faculty.

4. It seems paradoxical that one of the most appropriate ways for higher education to respond to pressures for a greater emphasis on the goal of education as preparation for work is to respond by emphasizing the multiple goals of higher education. It will certainly be a paradox if one of the major contributions career education makes to higher education is to bring about a re-awakening and an added emphasis on goals of higher education other than that of education as preparation for work.

5. It strikes me as paradoxical that, as higher education institutions worry more and more about obtaining alumni support, they seem still to be reluctant to utilize alumni as resource persons in career education efforts.

6. It seems paradoxical to me that, while the current rapid increase in continuing education efforts of higher education is increasingly directed toward a career emphasis, there appears to be no corresponding increase in a career emphasis for the undergraduate programs.

7. It seems paradoxical to observe the sizeable resistance to career education coming from members of the liberal arts faculty when, in actuality, a career education emphasis could easily become one of their strongest rationales for existence.

8. It strikes me as paradoxical to observe that, as the need for collaboration in career education becomes increasingly obvious, the response of many institutions of higher education seems to move in the opposite direction by creating still more competing programs.

9. It seems paradoxical to observe that, while persons from the broader business/labor/industry community are becoming increasingly involved in many college program operations, there has been no systematic effort to use their involvement as a stimulus for institutional change.

10. It seems paradoxical that philosophical statements of goals and objectives appearing in college catalogues seem to be read more frequently by parents and the general public than by members of the teaching faculty.

In a white paper prepared for the National Advisory Council for Career Education (NACCE), Goldstein (1977) observed that although elements of career education are flourishing on many campuses, these same institutions reject the career education concept as inappropriate for institutions of higher learning. He concluded that faculty and administrators do not understand the career education concept, do not consider it appropriate for higher education, and will probably ignore it.

Rosen, Olson and Cox (1977), in the study reported earlier, found that—

1. excellent programs combining education and work have arisen during the past seventy-five years in American postsecondary education in a variety of areas, e.g., liberal arts, cooperative education, counseling, and so forth;

2. there are strong, divergent views and considerable confusion regarding the concepts, language and perceived political implications of the career education concept;

3. program staff have diverse motivations for introducing students to the world of work, e.g., self-development, occupational entry, but they share a strong concern for the value and meaning of work for students participating in their programs; and

4. the best programs focus on defining and measuring student outcomes rather than outcomes for faculty, staff or employers.

The historical review by Herr (1977) noted that many of the problems facing postsecondary career education are traceable to unresolved, perhaps unresolvable, issues in American education. The preceding literature review indicates a variety of problems such as—

1. the use of the term career education versus some other term, e.g., career development, career preparation, life/career, education-work;

2. the role of the faculty in infusing career education concepts into the curriculum and classroom versus other delivery systems, e.g., counseling services, computer systems, peer paraprofessionals, alumni career consultants;

3. the liberal arts versus vocational education debate;

4. the nature of the leadership and commitment provided by faculty, staff, and central administration in providing the critical mass of support for implementing comprehensive career education; and

5. the varied nature of postsecondary institutions, which range from small, rural liberal arts colleges, to large research oriented universities, to urban open admission community colleges. This means that model programs must address the unique needs of these varied postsecondary institutions.

Summary

But even with this confusion, disarray, complexity, and controversy, postsecondary institutions have attempted to move forward, building upon an already established historical tradition of exemplary education-work programs, to reach out and establish expanded, comprehensive career education models. The general mission of education as preparation for

work has a strong legacy at the postsecondary level, and the following section will review recent efforts to operationalize comprehensive treatments as well as essential components of career education.

As various authorities cited in the preceeding section have noted, the lack of enthusiasm for career education among postsecondary faculty and staff has not dampened the enthusiasm with which they have creatively explored a great variety of alternative career interventions. Typically offered under the name of career development or planning services, rather than career education, these program activities represent the leading edge of career interventions in postsecondary institutions.

SUMMARY OF KNOWLEDGE

In the process of developing literature resources for this state of the art review of postsecondary career education, I was struck by the total lack of bridging between "career education" and other "career interventions" in the research literature. For example, Fretz (1981) defined career intervention as any activity or program intended to facilitate career development, which may be as brief as administering and presenting results of an interest inventory or as extensive as a full year's curriculum in career development. He reviewed about one hundred research reports, mostly conducted at the postsecondary level, but made no mention of career education interventions that would include infusion and collaboration as noted earlier. In similar fashion, recent comprehensive reviews by Holland, Magoon, and Spokane (1981), Super and Hall (1978), Betz (1977), Zytowski (1978), and W. Walsh (1979) reported no career education studies among the hundreds of career related articles reviewed. Only one scholarly review by Garbin and Stover (1980) mentioned a career education intervention, a report on experience-based career education. It is quite apparent that many scholars in the career area define career intervention more narrowly than we have defined career education in this paper, tending to limit it to one-to-one, small group, or programmed self-instruction counseling activities.

Nevertheless, several postsecondary level career-education models have been described in the literature. This model development and demonstration work has been accomplished in spite of the failure of Congress to appropriate funds to demonstrate postsecondary career education as provided in P.L. 95-207. The following pages review and synthesize relevant literature regarding the state of the art in postsecondary career education.

Some Propositions

Before examining actual comprehensive model programs or components of programs, it is worth noting that two ideal models have been proposed. Kenneth B. Hoyt, the director of the U. S. Office of Career Education since 1974, has written at least seven essays on postsecondary career education that provide a stimulating review of the concept (Hoyt 1976a, 1976b, 1977, 1978). One monograph, *Application of the Concept of Career Education to Higher Education: An Idealistic Model* (Hoyt 1976a), provides an especially useful conceptualization of what postsecondary career education could mean.

Briefly, Hoyt observed that one critical element in this idealistic model would be a career education resource center. This center would house such programs as admissions, counseling, career development, work experience, work-study, and placement. Students would have continuous developmental contacts with this career center throughout their college experience, and would be provided with extensive information resources, contacts with assorted career resource consultants, simulated occupational experiences, and professional career counseling. Also, extensive varied work experiences or career internships, paid and unpaid, would be available to all students. Such work-study programs would require considerable institutional commitment and intensive involvement by faculty as well as members of the business/labor/industry/alumni/government community. In addition, the role of the teaching faculty would

provide for time to infuse career education concepts into the teaching learning process; to reflect upon the institutional mission with respect to the preparation for work goal; to participate in professional development programs such as sabbaticals in business, industry, or government settings; to experiment with innovative programs to bridge the gap between education and work; and to capitalize upon the affinity between liberal arts and occupational specialities in developing learner skills necessary for productive living in work, including leisure. Finally, this idealistic model would provide a curriculum with multiple options for a diverse group of learners that would enable graduates to demonstrate both marketable skills and adaptability skills that would enable them to change with change. Concepts of flexibility, planfulness, and purposefulness would permeate the entire curriculum.

More recently, the American Association for Community and Junior Colleges (1979, p. 4) surveyed 500 representative institutions and identified eight components of a fully effective program.

1. *Career Resource Center.* An administrative unit on each campus should offer all or most of the following career services: staff development for faculty, work experience for students, and collaborative relationships with community organizations and with feeder and receiver schools. The center may also serve as a coordinating mechanism for all student personnel services.

2. *Career Education Staff Development for Faculty.* There should be systematic exposure to and training in career education for faculty, including liberal arts faculty. Staff development activities might include community representatives speaking with faculty about careers, faculty field visits to work sites, and personnel exchange programs whereby faculty change places with workers for a period of time. They might also include workshops on infusion of career concepts and information into the curriculum.

3. *Career Infusion in the Liberal Arts Curriculum.* There should be infusion of career ideas and content into liberal arts courses, with the faculty involved in the development of career-flavored curriculum. For example, social science faculty may systematically review for students the specific occupations in which the research techniques taught in sociology can be used.

4. *Career Related Work Experience Opportunities for All Students.* All students, including liberal arts students, should be offered work experience opportunities in the community, with special emphasis given to "career testing" opportunities. These experiences may consist of either paid or unpaid exploration.

5. *Services for Adults in Career Transition.* Special services should be offered to adults in career transition. Workshops, seminars, or diagnostic services may be offered to help adults as they seek job upgrading, make mid-career changes, or seek ways of using leisure time productively during retirement.

6. *Breaking Career Stereotypes.* Systematic efforts should be made to change administration, faculty, counselor, and student attitudes toward work stereotypes. This might include special programs where women or minorities shadow successful persons in a field of interest. It might also include a series of workshops to reduce sex-role stereotyping (a workshop for women as scientists or men as secretaries).

7. *Collaboration with the Community (Business, Labor, Industry, Government, and the Professionals).* College and community should join to provide career oriented curricula,

career information, and career exploration for students. Community representatives come to campus to advise faculty on curriculum updating and to speak to students about careers. They also arrange off-campus visitations, shadowing, and hands-on experiences for students. Ideally, the community influences college career policy and programs at every point.

8. *Collaboration with Receiver and Feeder Schools.* Relationships are extended beyond traditional recruiting efforts. High school students may be invited to the college campus for hands-on career experiences (using computer facilities, and so forth). College counselors may provide career counseling and diagnostic services to high school students.

Comprehensive Models

The foregoing analysis by Hoyt and the American Association of Community and Junior Colleges provides a broad review of the range and scope of elements to be included in postsecondary career education. The next section describes four selected attempts to demonstrate the impact of the implementation of such comprehensive career education treatments at four different kinds of postsecondary institutions.

University of Alabama

The most comprehensive, expensive career education program initiated at a postsecondary institution was implemented at the University of Alabama during 1975-1976. This residential, research oriented state university has an enrollment of about 18,000 and a wide variety of undergraduate programs. With a federal grant of $275,000 and considerable institutional commitment, the project sought to develop a comprehensive career development model program at the University. McLean and Loree (1976) described the effort with respect to program features, goals, and operational plan. Regarding distinguishing features of the University of Alabama career development program, they noted the following:

1. It was comprehensive in that it coordinated university efforts at all levels.
2. The plan originated through the efforts of over a hundred faculty and staff members.
3. It infused the academic mainstream.
4. It was housed under the highest campus authority, the Vice President for Academic Affairs.
5. It involved the business-labor-professional-governmental community.
6. It included a teacher training component.
7. It was sustained by a coordinated support system.

These features served as the guiding philosophy for the implementation and operation of the career development program.

The implementation of the project took place on four fronts. "The first involved the infusion of career development into the academic mainstream; the second involved the development of a support system; the third involved the development of a community outreach system; and the fourth involved the installment of a management system" (McLean and Loree 1976, p. 3).

Evaluation reports by McLean and Loree (1976) and by Casella (1976), the project director, provide detailed analysis of the initial impact of the project. Besides providing more than 150 pages of detailed descriptive information on the scores of activities undertaken by the project, the authors carefully analyzed faculty attitudes and student needs regarding career education. Even though this comprehensive model building effort was never fully implemented because the University of Alabama was unable to sustain the project after federal funding stopped, and the full impact of this complex program was never fully evaluated, the Alabama experience provided some valuable lessons to those interested in postsecondary career education. These included the critical importance of on-campus project direction and leadership in coordinating the work of professional staff and faculty; a realization that a large number of federal dollars does not ensure faculty-staff commitment to career education program goals and may even be counter-productive; that salary funds to purchase release time for faculty participation are less effective than direct overload payments to faculty; that communicating information about available programs and marketing those programs to students is a difficult, persistent problem on a large campus; and that faculty are moderately supportive of infusing career education into the curriculum, and strongly support student career services in general. It might be noted that the University chose to label its effort a career development program, rather than a career education program.

University of Maine

Another university-based career education project was reported from the University of Maine by Ryan, Drummond, and Sutton (1978, 1979). This residential state university is of medium size with an enrollment of 10,000. Funded over a three-year period by the U.S. Office of Career Education, the project began in 1975 with an emphasis to implement career education in a public school setting, and then shifted in the second and third years to emphasize training university faculty and staff to infuse career education in postsecondary settings.

Project activities included a seminar series consisting of eight career education sessions and related out-of-class assignments designed to demonstrate the concepts and practices of career education to faculty. The sessions provided an overview of the philosophy, concepts, and practices of career education in postsecondary institutions. Specific topics covered in the sessions included the eight elements of career education, infusion strategies, implementation of career education within academic courses, course development models, self-awareness techniques, and various career education models. In conjunction with selected faculty from the University of Maine at Orono and Husson College, seminar participants developed instructional career education units focusing on career awareness, decision making, economic awareness, beginning competencies, employability skills, and self-awareness.

Also as a part of the project, an evaluation study was conducted. Using a posttest only control groups design, the study investigated whether there were differences between the knowledge and attitudes of these groups: (1) faculty members from the College of Education, Engineering and Science, and Life Science and Agriculture who participated in the eight seminars; (2) faculty members from these colleges who were in a self-instructional group; and (3) a control group who did not participate in the study.

Among the findings was that seminar participants had higher mean scores than did the self-study groups and control group on the Career Education Knowledge Test (5th revision). The Faculty Attitude Survey (McLean and Loree 1976) was also administered and significant differences between the three groups were obtained. The seminar group had higher mean scores on the Faculty Attitude Scale than either the self-study or control groups.

Alma College

The Career Preparation Program at Alma College, a small, residential liberal arts oriented college in central Michigan with an enrollment of 1,200, began in 1976 and has been supported by foundation grants and the U. S. Office of Career Education (Behring 1979, p. 4-5). In the program, a major commitment was made to collaborate with representatives of the business/labor/government/industry community and several programs were modified or strengthened and new programs or activities were initiated. The initial thrust of the Alma College program focused on the following five elements:

1. Developing student workshops to assist students in exploring careers and developing entry level skills.

2. Developing a multimedia career information center that would serve as a resource for faculty and students.

3. Developing faculty awareness of career development theory and techniques, the importance of career planning to academic achievement, and the relationship of their discipline to the world of work opportunities.

4. Development of the practicum program and formal acceptance by the faculty of practicum procedures and credit.

5. Development of career days, career seminars, and so forth, where career professionals come to the campus to work with students and faculty.

Figure I provides a chart with examples of the resources and activities used in the program. This comprehensive model demonstration of postsecondary education has had extensive national exposure and generated considerable interest. In order to improve project information dissemination, the College has held several summer workshops, distributed detailed reports, and produced a videocassette on the successful demonstration project.

Evaluation studies revealed positive, beneficial outcomes of the Career Preparation Program for both students and faculty. For example, students participating in the program in comparison to nonparticipants reported a higher level of skill development in communications skills and interpersonal relationships, displayed more initiative in job exploration, were offered almost twice as many job interviews based on resumes, and reported more satisfaction with their choice of major. Faculty were able to move the curriculum toward competency-based education, reemphasize basic skills, integrate work experience into the curriculum, develop more flexible majors, and shift the focus of academic advising from course scheduling to broader educational counseling.

FIGURE 1

EXAMPLES OF A TOTAL CAREER DEVELOPMENT APPROACH

Resources	Faculty/Academic Programs	Workshops	What We Do on Campus
Career Information Center	Practicums	Career Information Workshop I	Career Exchanges on Parents Day and Homecoming
Faculty stipends for workshops and travel	Use of consultants in classroom	Occupational Information Workshop	Students completing practicum in a campus office
New advising tools including skills and assessment devices	Increased required oral presentations	Career Exploration Workshop II	Style and approach of the way in which we go about our business (our own development)
Network of alumni and friends who may be called upon by faculty and students	Greater requirements for written communication	Communication Skills Workshop II	Bringing significant persons in their fields to the campus
Increased corporate contact by faculty and staff	Faculty visitations to work sites	Letter Writing	Awareness of trends in various fields and higher education through a variety of means
Members of the Board of Trustees	Development of department advisory boards of professionals	Practicum Planning	Recognition to outstanding practicums and professional achievement
	Encouragement of student solution to area problem in several departments	Senior Sequence	
	Effective career advising		
	Faculty members as career consultants to high schools in areas of their expertise		
	Increased applied study programs during the intensive term		
	Profession related applied research by students encouraged		

Arapahoe Community College

During 1978-79, the U.S. Office of Career Education funded a community college level demonstration project to enhance a career education program at Arapahoe Community College, located in metropolitan Denver and having an enrollment of about 2,000 students. The project attempted to establish a comprehensive career education process in a community college through the expansion of a community oriented career resource center. It was felt that the center would serve to give career education high visibility and bring the resources of the college and community closer together to be responsive to the college and the community. The project enabled Arapahoe Community College to provide inservice education to faculty, work experience and career information to students through increased resources and the utilization of personnel from the business/labor/industry communities to facilitate the process of relating instruction to productive career options (Carson 1979).

The career development program through the community career resource center assists people in making decisions concerning their educational and career goals through modules that teach students to explore careers as well as assess their own abilities and interests as they relate to the world of work. The cooperative career education program offers students the opportunity to earn college credits in a work setting related to their career goal and is utilized by both occupational and general studies students. The cooperative career education program allows students to test in real situations what they have learned in the career development program and from the instructional staff who have infused career educational concepts and skills development into specific curricula.

Other Models

Besides the four demonstration projects briefly reviewed in the foregoing sections, the U.S. Office of Career Education supported several other broad-based efforts to implement postsecondary career education. Over a four-year period (1975-1978), about twenty grants or contracts were awarded for the purpose of demonstrating comprehensive postsecondary career education models. While some postsecondary projects focused on special populations, (e.g. women, autoworkers, handicapped), others involved faculty, community outreach, career centers, and interinstitutional consortia. Unfortunately, only about twelve of the final reports of the comprehensive model demonstration projects are available to interested persons through the ERIC system (including the four previously described). Many project reports did not meet criteria for inclusion in the system, e.g. reproducible copy, useful to practitioners, and so forth. The following pages provide a brief synopsis of those additional comprehensive model building demonstration projects. More information about these projects is available through the ERIC system in the reference list of this paper.

- *A Model for a Comprehensive Career Educational Approach to Higher Education*—a comprehensive program at LaGuardia Community College in New York to infuse career education into the total curriculum, utilizing faculty, community resources, and a career center (LaGuardia Community College 1977)

- *Demonstration of Career Information Centers (CIC) in Postsecondary Institutions*—an effort to demonstrate a model campus-based CIC to meet the needs of adults for career and educational planning (Aslanian & Schmelter 1980)

- *Synthesizing the World of Work and the Liberal Arts in Higher Education*—(1978) a two-year project at the University of Denver designed to initiate a faculty-academic

department based career education program to enhance student educational-career planning and placement (Goldberg, et al. 1979)

- *A Model for Integrating Liberal and Career Education*—a project at William James College to infuse career education into the teaching-learning process by involving faculty in a developmental inservice training program (Rogers and Seeley 1979)

- *Community Career Education Center Project*—a cooperative effort by several organizations in Norwalk, Connecticut to establish two community career education centers primarily for transition adults (Cooperative Educational Services 1978)

- *Comprehensive Career Life Development Center*—a 1976 project at Virginia Western Community College designed to demonstrate a model postsecondary career education program for students and nonstudents

- *Career Education for Non-Traditional Students (CENTS)*—a two year project at Northern Virginia Community College to develop and use in a variety of learning situations print-based career education materials for adult students (Northern Virginia Community College 1977)

Besides these U.S. Office of Career Education funded projects, many other postsecondary institutions have reported on the development and operation of exemplary programs. Professional journals such as the *Journal of College Placement, Journal of Career Education, Vocational Guidance Quarterly,* and *Journal of College Student Personnel* frequently publish articles describing such programs. Recent examples were provided by (1) Sharf, Wilson, and Townsend (1979), in an article "A Career Development Model," that reported a comprehensive effort at the University of Delaware; (2) Evans and Donald (1978), in "Career Education: A Comprehensive Community College Model," that described a model program at Delaware County Community College in Media, Pennsylvania; (3) Ashcraft (1975), who used a comprehensive model developed by Gysbers and Moore (1974) to describe and analyze the career related activities available at Florida State University; (4) Brandt (1977), who described a programmatic, varied counseling model for delivery of career development programs; and (5) Watkins (1979), who described a comprehensive effort to integrate career education into the total liberal arts framework at tiny Doane College in Crete, Nebraska. In addition, brief descriptions of model programs are included in reports by the American Association of Community and Junior Colleges (1979) and Rosen, Olson, and Cox (1977). Besides these reports of career education demonstration projects, *Resources for Change* (1976-1980), an annual publication describing projects funded by the Fund for The Improvement of Postsecondary Education (FIPSE), provides brief summaries of scores of education-work related special programs. The final reports on many of these career oriented projects are available through the ERIC system.

Target Populations

Although postsecondary career education efforts have been comprehensive in scope, some programs have been targeted for particular subpopulations. The following paragraphs identify some of the groups receiving special career interventions. Much of this information is based on a review of information available in the ERIC database as of December, 1980, using the search strategy "career education x postsecondary education."

Infusion into Selected Academic Fields of Study

Several of the career education projects previously reviewed included instructional development activities related to various disciplines, e.g., University of Alabama, University of Maine. In addition, the Interinstitutional Consortium for Career Education, composed of Oregon colleges and universities preparing teachers, counselors, and administrators, produced a monograph describing twenty-three course syllabi authored by faculty committed to infusing career education elements into their college courses (Dunbar 1977). The courses represented content areas such as social science, teacher education, consumer education, art, music, health/physical education, and math. Other career planning/development programs have been created for psychology majors (McGovern 1979), chemical engineering (Bethea et al. 1979), English majors (Darrell 1976; Dungy et al. 1978), science and math (McCuiston and Walker 1976), physics (Listerman 1973), speech communication (Hall 1978), and sociology (Taylor 1978).

Undecided Majors

Students are sometimes unable to make a commitment to a single field of study for a variety of reasons, such as lack of decision-making skills, lack of information about alternatives, a variety of interests, lack of vocational experience, conflicting information, or lack of information about self (Rosenberg 1977). These students have been a continuing focus of researchers and counselors because of their inability to identify an academic home for themselves and their high attrition rate. Menning and Whittmayer (1979) and Bonar and Mahler (1976) have reported on program efforts to facilitate the educational/career planning of these students, and Gordon (1981) has reviewed the implications of student development theory for program development.

Workers and Other Adult Learners

Several of the aforementioned career education demonstration projects were specifically targeted for adults. In addition to these efforts, Aslanian and Schmelter (1980), Berner (1979), Valley (1977), Walz and Benjamin (1980), and Westbrook (1977) have provided extensive documentation of adult career education needs, desirable program elements, and examples of model programs. Readers should also be aware that during the past several years, the College Board, through a unit called Future Directions for a Learning Society, has published extensively on the career related needs of adults. Some of their most recent publications include *40 Million Americans in Career Transition* (Arbeiter et al. 1978b) and *The Missing Link: Connecting Adult Learners to Learning Resources* (Cross 1978).

Women, Disabled, Minorities

Special career related interventions have recently been reported for women (especially older, returning students), physically disabled persons, and members of ethnic minorities. Since about 1975, a flood of published, validated materials designed to promote women's educational equity and movement into nonstereotyped careers has appeared. P. Walsh (1979), Woodie and Bauer (1979), Lockhart (1979), Leiterman-Stock (1979), O'Neil et al. (1980), Farmer (1975), Eliason (1979), Richardson and Thomas (1978), Hansen (1977) and McLoughlin et al. (1978) have reported various research and/or program strategies for enhancing the career planning of women. Stilwell and Schulker (1973), Reardon et al. (1978), White et al. (1979), Brolin (1978), Hicks (1981), and Katz and Flugman (1977) have recently described a variety of career education interventions, both curriculum based and support services for physically disabled students. Delos Santos (1973) and Farmer (1978) have reported efforts to target career education for the ethnic minority students.

Besides the sources noted above, practitioners should be aware of valuable secondary resources in this area. These include the (1) Women's Educational Equity Communications Network, operated by the Far West Laboratory for Educational Research and Development, 1855 Folsom Street, San Francisco, California 94103, (415/565-3000); (2) Dissemination Center, Women's Educational Equity Act Program, c/o Education Development Center, 55 Chapel St., Newton, Massachusetts 02160, (800/225-3088); (3) information review booklets produced by the ERIC Counseling and Personnel Services Clearinghouse (ERIC/CAPS), School of Education, The University of Michigan, Ann Arbor, Michigan 48109 and (4) the ERIC Clearinghouse on Adult, Career, and Vocational Education (ERIC/ACVE), The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210. Examples of publications relevant to the career education needs of women, disabled, or minority persons include the following: *Sex Fairness in Career Education* (Peterson and Vetter 1977), *The Career and Vocational Development of Handicapped Learners* (Brolin and Kolstoe 1978), and *Sex Stereotyping and Occupational Aspiration* (Stakelon and Magisos 1975). Finally, the (5) American Institutes for Research, P.O. Box 1113, Palo Alto, California 94302, has produced a monograph, *Programs to Combat Stereotyping in Career Choice* (1980) and an activities package to combat sex, race, and handicap stereotyping.

Other Subpopulations

The diverse range of postsecondary settings provides the unique opportunity for institutions to be very specific in their outreach efforts. Behring (1979); Sharf, Wilson, and Townsend (1979); and Reardon (1973) reported career interventions for students living in residence halls; Brown and Whitten (1977), Gamson (1979), Krolik and Nelson (1978), and McGovern and Tinsley (1976) reported on the needs of and strategies for meeting the career needs of graduate students; Sheifer (1973) described a cooperative program between a community college and correctional institution; and MacArthur (1980) and Walter-Samli and Samli (1979) described a career program for international students.

Delivery Systems

Postsecondary institutions have a long history of preparing students for work roles. These career interventions include a wide variety of delivery systems. Model K-12 school-based career education programs have concentrated on (1) infusion of career education concepts into the teaching-learning process throughout the curriculum, (2) the career guidance program mediated by the school counselor, and (3) collaborative efforts with the broader community through work-study arrangements, experience-based career education, and cooperative education. Some model postsecondary efforts have also included these three strategies for delivering career education; however, partial, less comprehensive career education programs have also been widely used in postsecondary institutions. The following paragraphs briefly review some of these specialized, varied delivery systems.

Faculty Development/Consultation

Most of the model postsecondary programs cited earlier reported extensive efforts to train and provide inservice experiences for faculty members. Articles by Evans and Donald (1978), Moed (1978) and a report by the Wisconsin State Department of Public Instruction (1978) provide additional documentation of these efforts. O'Toole (1979), Krupka and Vener (1978) and Holcomb and O'Toole (1980) described the results of a variety of faculty development activities designed to

promote the infusion of career education concepts, particularly for physically disabled persons, into instruction.

Academic Advising

A unique postsecondary career education strategy involves the function of faculty as academic advisors. Advisement typically includes assistance to students in educational planning, course selection, career planning, and referral. Rock (1977), Butenhof (1977), Behring (1979, 1980), Chickering (1973), Polson and Jurich (1979), Vener and Krupka (1980), and Borland (1973) have described ways in which academic advising can be integrated with career education. In addition, reports by Prince George's Community College (1979), E. Walsh (1979), and the Southern Regional Education Board (1977) have provided detailed information on improving advisement programs.

Experience-based Career Education (Cooperative Education)

Older youth and adults are well-suited to participate in work learning programs because they do not raise child-labor concerns, have more flexible time schedules, are more mobile, and so forth. Zagoren (1979), Gidding (1977), Alwell (1977), Lee (1974), Arnett (1974), Sexton (1976), and Melton (1980) have recently reported on surveys of varied program activities and program evaluations in this area.

Separate Courses

Separate career planning/exploration/education courses have been offered in postsecondary institutions for seventy-five years (Holcomb 1966). Reports of such efforts have been provided by Johnson, Smither, and Holland (1981), Bartsch and Hackett (1979), Reardon and Regan (1981), Cochran, Hetherington, and Strand (1980), Evans and Rector (1978), Dwight (1975), Heppner and Krause (1979), Adams (1974), and Sullivan and Neely (1974). Barker (1979, 1981) has described a postsecondary career decision-making course developed by the Appalachia Educational Laboratory, and Miller (1980) has reported a career planning course module developed by the Los Angeles Community College District. Knefelkamp and Slepitza (1978) described a cognitive model for career development, which Touchton et al. (1977) used in a college career planning course. Career planning texts have been authored by Shertzer (1977), Shingleton and Bao (1977), Barkhaus and Bolyard (1980), Gainer and Stark (1979), Bolles (1973), Bachhuber and Harwood (1978), Figler (1979), Carney, Wells, and Strenfert (1981), and Crystal and Bolles (1974).

Although the notion of separate career courses partially abrogates the infusion principle, it would seem that this strategy does represent an effective, inexpensive alternative for making career education available to those postsecondary learners who want it. This would seem especially true if the course is offered for credit and is integrated with other career services on the campus.

Liberal Arts Curricula

Perhaps the most visible area of controversy in the discussion of career education at the postsecondary level centers on the liberal arts curricula. Because much of the rhetoric supporting the liberal arts is pointedly opposed to any overt involvement in preparation for work

programs, especially vocationally oriented job training, career education has been viewed by some as a Trojan horse designed to eliminate the liberal arts and substitute a new vocationalism. Hoyt (1978), Marland (1978), Riley (1979), Ginn (1977), Maston (1976), Paradise (1976), Figler (1975), Green (1975), Bell (1975), Baratz (1977) and Permaul (1973) have all argued that career education can and should enhance rather than detract from liberal arts studies. Others, however, such as Woodring (1979), Stephenson (1974), Hurn (1979), and Adams (1975) have argued against career education. One of the more thoughtful explorations of this topic is presented in the twenty-four papers included in *Relating Work and Education* (Vermilye 1977), a publication sponsored by the American Association of Higher Education. All of this discussion has led Casella (1978) to suggest that the liberal arts-career education debate wastes energy that could otherwise be creatively used to design programs that enhance student development in both education and work.

Mentors, Brokers/Consultants

As noted earlier, the new groups of older learners and the broader community involvement in postsecondary institutions have combined to enhance the role of mentors, brokers, and consultants in career education efforts. Kjos and Donahue (1979) have described the role of retired adults in career education; Fulton and Morrison (1974) described the mentor role in career exploration; Forney and Adams (1976), Kaufman (1976), and Sampson (1980) described the role of alumni as career resource persons; and Vickers and Heffernan (1973) and Heffernan (1973) discussed the role of the learning consultant or educational broker.

Individual and Group Career Counseling

Although representing an incomplete, limited career education intervention not characterized by infusion and collaboration, individual and group career counseling for selected students needing more intensive, individualized assistance is an essential component of postsecondary career education. Because hundreds of articles have been written on this topic and have been extensively reviewed by Fretz (1981) and others, it is sufficient to note that Crites (1981), Hoffman and Cochran (1975), Hazel (1976), Enos (1975), Johnson (1977), Parker et al. (1971), Parsell and Thompson (1979), Healy (1974), Tolbert (1980) and Zunker (1981) have provided some especially useful practitioner oriented reviews of both individual and group career counseling methods.

Career Placement Services

The need to revitalize the career placement service has been viewed as an essential part of a postsecondary career education effort. The career placement office occupies a unique position as the transition point in the school-based preparation for work learning program and the community-based work environment. Thus placement, a capstone unit for many academic programs, already occupies a special relationship in the teaching-learning process on many campuses. In addition, placement offices are in a unique position to conduct follow-up studies of graduates and to provide feedback to institutional planners and decision makers. Finally, many placement offices have broadened their outreach effort to lower division and entering students in an effort to prevent later career adjustment problems at graduation time. Weinstein (1979), Healy (1976), Papke (1976), Parker (1975), Johnson and Mayberry (1981), Brod and Brod (1974), Simpson and Harwood (1973), Beaumont et al. (1978) and Powell and Kirts (1980) have all described various elements of the revitalized career placement services program.

Career Center

While career counseling and placement offices have been present at most postsecondary institutions for forty years, career centers have recently become a key element in the career education treatment (Reardon, Zunker, and Dyal 1979). Career centers may operate under various names, e.g., Career Dynamics Lab, Futures Shoppe, Career Information (or Resource) Center, but they typically utilize self-help, multimedia materials, outreach programs, instructional support, short term group/individual counseling, and peer/paraprofessional counselors to deliver information services, employability skills training, decision-making and self-assessment programs, and referral services to a highly diverse clientele. Recent papers by Reardon, Domkowski, and Jackson (1980), Spector and Evans (1978), Watkins and Landrum (1976), Drummond (1977), Axelrod et al. (1977), Jacobson (1978), and Koehn (1977, 1978) provide an excellent description of the development, operation, and management of campus career centers and centralized career planning programs.

Computer-based Systems

Technological innovations related to computers have dramatically enhanced the delivery of educational/occupational information and the management of career related information (Sander and Wolff 1975; Wilhelm 1978). Instructionally oriented systems such as SIGI (Katz 1980) and DISCOVER (Rayman and Bowlsbey 1977) provide learners with intensive opportunities to improve career decision-making skills, clarify self-information, such as values, and explore environmental information. Other career information delivery systems provide immediate access to extensive collections of occupational/educational information (Franklin 1978; Clyde 1979) or assist clients in job placement activities (Barkhaus and Crandall 1976; LaMotte 1977; Johnson and Mayberry 1981). Recent advances in microcomputers have served to dramatically lower the costs of such systems and to ensure the rapid increase in the use of these career education support systems.

Telephone-based Programs

Drawing on the extensive experience provided by the home-based career education demonstration project at Providence, Rhode Island, several institutions have described outreach efforts designed to provide short term career counseling and referral to home-based, office-bound, or rural persons via the telephone. Such paraprofessional staffed programs, with the back-up support of a computer or a career information center, have been described by Arbeiter, et al. (1978b), Nolting and Saffian (1972), and Roach (1981).

Other Systems

In addition to the varied strategies described in the foregoing pages, many postsecondary institutions have other delivery systems. These include (a) continuing education programs providing varied instruction programs to subpopulations on a need basis; (b) CETA funded contractual arrangements to provide career related services and instruction to eligible clients; (c) articulation and orientation programs to ease the entry of new students into the postsecondary institution; (d) learning centers and special retention/assistance programs to provide supplemental learning assistance to learners with inadequate academic skills; (e) alumni programs designed to provide ongoing career planning and placement assistance to former graduates; and (f) financial aid programs, including work-study programs, designed to ease the financial burden brought on by the increasing costs of postsecondary education. Each of these

additional delivery systems are typically included in a comprehensive postsecondary career education treatment model.

Program Management and Organization

The preceding discussion provides a background for an exploration of the potentials and pitfalls of postsecondary career education. The potential range and scope of service delivery mechanisms for career education range from primary prevention, systems oriented methods to direct, intensive remedial approaches. It is likely that most postsecondary institutions will employ many of these strategies, and in the case of large universities, there may be fifteen alternative methods used to deliver career education to varied groups of learners. This complexity of interventions raises difficult questions about the organization and management of postsecondary career education efforts, including facilities, staffing, evaluation, advertising, training, budget, referral, and staff support. In 1974, Lansing provided a detailed analysis of this problem and offered a model for organizing and operating a comprehensive model program. Cochran and Rademacher (1978) produced a model for university career development programming. Luther and Smith (1974) described a functional model for managing a comprehensive career development program at the college level. Reardon (1980) reported on the efforts at Florida State University in creating a Department of Career Development Services in The Division of Student Affairs, composed of Career Placement, Cooperative Education, and a career center, and supported by a computer systems coordinator and librarian.

As Hoyt (1978) noted, research is needed to demonstrate the most effective administrative arrangements for organizing placement, counseling, orientation, information, cooperative education, follow-up and other student services for impacting the teaching-learning process. In the meantime, practitioners would do well to study the efforts of other institutions cited earlier, including the University of Alabama, University of Maine, Alma College, University of Delaware, and Delaware Community College. It is apparent that local leadership for postsecondary career education can be provided by faculty members, career services program directors, presidents, or deans from either student affairs or academic affairs. At the very least, it is apparent that wherever the leadership originates, effective postsecondary career education requires the coordinated involvement of many frequently isolated programs, especially in large institutions. Such coordination requires a commitment and support of top central administration in the institution to the goal of preparing learners for work roles, and the effectiveness of a variety of policy-making and program advisory committees. The successful marketing of a complex career education treatment and the timely referral of potential users of these varied programs requires such efficient and functional coordination.

IMPLICATIONS FOR PRACTICE

The preceding review of the state of the art in postsecondary career education presents a complex, varied system of sometimes fragmented, sometimes effective, sometimes theoretically comprehensive, sometimes well-managed career intervention strategies. Much has been done in designing and operating postsecondary career education programs, but there is evidence of much unfinished work remaining. While some community colleges and small, liberal arts colleges have successfully attempted the full career education treatment, including infusion and collaboration, few larger, research oriented universities have ventured into the full treatment. So what have we learned about postsecondary career education so far and where do we need to be heading in the future? Those practitioners who have forged ahead in attempting to develop and operate model programs have provided some noteworthy reflections.

Behring (1979, pp. 75-76) after more than three years experience with the Alma College Career Preparation Program, provided a list of essential elements of a model program.

1. Develop an approach that is consistent with the stated goals and objectives of the College.

2. Start with a small cadre of faculty members who are willing to integrate career development concepts into their advising. Enlist these faculty members in the design and evaluation of the program. Establish broad ownership of any program.

3. Wherever possible integrate activities with other college functions, Homecoming, Parents Day, College Relations, Admissions, and so forth.

4. Develop programs that build faculty members' knowledge and information about the applicability of their disciplines and develops their advising skills.

5. Provide funds that enable faculty members to visit professionals and to invite them to the campus.

6. Establish a systematic work/study program that receives faculty approval.

7. Establish a multi-media career information center and develop a corps of students skilled in its use.

8. Wherever possible integrate career planning resources with classroom activities. (A speech class, for example, could evaluate interview tapes.)

9. Develop an effective inservice advising training program for faculty that includes the development of career planning skills.

10. Develop advising materials that support initiative in planning and integration of personal education, and career development.

11. Disseminate formative evaluation of any program through quality publications.

12. Develop a series of workshop modules that focus on the main elements of career development: Self-Awareness, Career Awareness, Communication Skills, Decision Making, Marketing Skills, Transition Planning (pre-graduation).

13. Maintain a professional staff of three persons per thousand students who have the following responsibilities: advising coordination, placement programs, Career Information Center, research, workshops leadership, coordination of tutoring study skills and other self-help programs, personal counseling, crisis intervention, practicum/work study coordination, outreach programs with on and off campus groups.

14. Keep accurate records; know what happens to the college's students.

15. Be willing to throw out programs that don't work and give ownership away as a program becomes integrated into the regular functions of the college.

16. Focus upon the identification of those skills inherent in a liberal arts educational program.

17. Be able to clearly articulate the theoretical and practical basis for any new program undertaken.

18. All activities undertaken should have as a basic goal increasing knowledge and information that presents alternative choices for students and faculty.

Ryan, Drummond, and Sutton (1978), at the University of Maine, also directed a three-year career education project and offered a thoughtful analysis of the prospective role and present function of postsecondary career education. They began by noting that each of the 2,500 American colleges and universities have unique features with respect to governance, curriculum, students, faculty, and auxiliary services. This uniqueness precludes the creation of the model career education program that would meet the needs of and be successful at most innstitutions. They further noted that they viewed (1) curriculum relevance, (2) assisting student career development, and (3) providing conditions to support faculty creativity as the most important issues confronting higher education. Within this context, the authors noted that the freedom present in higher education institutions has some important implications for career education, assuming faculty can seriously examine career education in the spirit of open inquiry. This includes:

1. Freedom to investigate ideas, test models, and suggest applications without fear of political interference.

2. Freedom to pursue knowledge in areas of inquiry that may be unpopular with various societal elements.

3. Freedom to develop, revise, and test new curriculum models without securing public approval.

4. Freedom to consult with various societal sectors without undue fear of disturbing "sacred cows." University professors enjoy a level of prestige that renders their opinions as expert and it requires considerable public failures to lose this confidence.

5. Freedom to be creative in an institutional setting that thrives on new knowledge. In particular, new learning models that stimulate student motivation and interest are particularly sought.

6. Freedom to challenge old shibboleths that retard intellectual growth and restrict faculty in pursuit of knowledge.

On the other hand, Ryan, Drummond, and Sutton (1978, pp. 8-9), noted six major constraints impeding career education in higher education.

1. Excessive faculty teaching loads act to restrict teaching innovation. As a result of budgetary crises of the last four years central administration has resorted to leaving unfilled vacancies which occur through natural attrition. It is not uncommon to find faculty who teach twelve to fifteen credit hours per semester and average about 100 advisees in addition.

2. Budgetary reductions have reduced the number of teaching assistants available to assist faculty with routine tasks associated with the teaching process. As a result, time for creative curriculum development is further reduced.

3. The pressure of inflationary economics has reduced real take home pay for faculty and resulted in the pursuit of consultancies or other forms of remuneration. Also, the opportunity to earn extra salary via teaching in continuing education, extension or summer school works to reduce faculty energy and creativity.

4. Work in terms of ethics and acceptance as practiced in the business industry world is not viewed as a scholarly endeavor. Discussion of work and attendant values is not viewed as a matter of high importance for inclusion by most faculty in their classrooms. The evaluation of higher education over five centuries reflected a bias that learning was for a select few and that those endeavors deemed "occupational" were not worthy of inclusion in the curriculum.

5. Accrediting societies and associations tend to be restrictive in their insistence on adherence to established professional standards. Reliance on external agencies for official sanction of new innovations, particularly in curriculum, serves as an inhibiting function. In a sense, merely meeting prescribed standards may serve more as a deterrent to experimenting with new or revised learning models.

6. Bureaucratic procedures tend to become increasingly complex as institutions attain increased size or historical chronology. Practices become accepted because it was accepted de facto over a period of time. In spite of the avowed search for truth there is considerable reliance on accepted past practices. In retrospect, established institutions of over fifty years existence may be the most difficult in which to implement career education.

Sharf, Wilson and Townsend (1979, p.49), reflected on two years of experience with their career development model program at the University of Delaware and noted several desirable process and product outcomes:

- The process of researching and sharing information within the task force increased both individual and common understanding of career development and of services being

offered throughout the United States. As such, the task force activities served as professional development, as well as an incentive for many persons in their work.

- Each career service unit assumed discrete and complementary responsibilities within the model.
- An on-going task force enhanced interdepartmental coordination of services.
- All offices used the model to describe their services as programs.
- More students understand what they need to do, and how and where to get assistance because of the numerous explanatory publications which were organized around the concepts within the model.

Other program developers, such as Casella (1978, 1976), Luther and Smith (1974), Rogers and Seeley (1979), Evans and Donald (1978), and Ashcraft (1975), have all reported on their efforts to work with comprehensive career intervention models and readers are encouraged to study these reports.

Dr. Kenneth Hoyt, director of the U. S. Office of Career Education, has provided some thoughtful reflections on postsecondary career education. In one of the Career Education Monographs, *Refining the Career Education Concept* (1976b), Hoyt noted that the career education concept must be extended to postsecondary education as an essential next step, but that the implementation will be slower and more difficult than at the K-12 level. He believes this to be true because implementation of career education at postsecondary institutions would require (1) a change in the organizational structure and delivery of services, (2) internal changes in members of the teaching faculty and in the conduct of the teaching-learning process, and (3) large amounts of new dollars to redirect institutions that will not be available. At many institutions there is faculty resistance to increased call for more attention to education-work relationships triggering a reflexive defense of the liberal arts.

On the other hand, Hoyt (1978) has noted that students desire, need, and are ready for career education. The lack of top level administrative support for career education may be overcome by (1) recognizing the needs of the new breed of adult learners in postsecondary education, (2) mobilizing influential thought leaders in business/labor/industry/government to sensitize administrators to the need for career education, (3) pointing out the relevance of career education as a student recruitment tool, (4) emphasizing the potential of career education for reducing student attrition, (5) consolidating and streamlining student services for more efficient programs, and (6) building closer relationships with alumni possibly leading to improved public relations and financial support. Regarding nonacademic support programs, Hoyt (1978) noted that such units need to work more collaboratively and to improve interaction with the faculty. The recruiting/admissions/counseling/financial aids/placement operations, for example, can be viewed in terms of a career education service continuum. In this regard, the placement office may be viewed both in terms of a boundary spanning unit to the community and as a feedback loop to institutional administrators and faculty. In similar fashion the alumni office holds high potential as a career education resource, especially with respect to the cooperative education, work experience, and experience-based career education programs. It is quite apparent that these nonacademic service units have much to offer academic departments with respect to implementing career education. Finally, Hoyt (1978, p.16) offered several suggestions gleaned from consultants attending U.S. Office of Career Education miniconferences regarding faculty involvement in career education. First, he categorized four sources of faculty resistance to career education.

1. Most faculty members do not understand the concept and are not easily motivated to learn about it through traditional faculty meetings. The term faculty development is regarded, by the typical faculty member, as an individual matter of personal choice, not something carried out in group settings in meetings called by college administrators.

2. To many members of the academic faculty, the goal of education is simply education, i.e., the purposes that motivate the student to learn the subject matter and the uses made by the student of the subject matter are not matters of primary concern to the faculty member.

3. The high degree of autonomy afforded individual faculty members, so necessary to protection of academic freedom, acts as a most effective deterrent to widespread institutional change. Only two basic avenues exist for use in motivating the individual faculty member to change: (a) to convince him or her that, unless change occurs, the faculty member's status and/or position may be threatened; or (b) convince him or her that there is something positive to be gained from changing. Of these two basic avenues, the second is far preferable to the first.

4. Faculty members tend to feel a higher loyalty to their particular academic discipline than to the employing institution. Thus, their tendencies to change are governed relatively more on the basis of what is the perceived direction of and benefits for the discipline than any perceived concern for the goals and welfare of the institution.

Next, Hoyt (1978, pp.16-18) reported seven positive steps that might be taken to remedy faculty resistance to career education.

1. Recognizing that the survival of Assistant Professors is heavily dependent on production of scholarly work within their specialty and, recognizing further that many who have attained the status of full Professor may be disinclined toward change, concentrate on trying to influence Associate Professors to study and learn about career education through a series of subsidized seminars where the participating faculty members will be paid for learning. It was suggested that foundation funds may be available for such purposes.

2. Organize faculty development programs around sabbaticals in the broader occupational society for individual faculty members. Such experiences, subsidized by the business/industry/community, could help faculty members learn how graduates use what they teach and motivate faculty members to place a greater emphasis on education for preparation for work.

3. With the help of the alumni association and the college placement office, encourage individual faculty members to follow up their majors in order to discover the occupations they actually enter. Such data may encourage many faculty members to use resource persons from the business/industry community in their classes to discuss career implications of current majors with students.

4. Demonstrate, using interested faculty, how a careers emphasis on the part of a given discipline or department within the institution may encourage more students to enroll as majors. The "students voting with their feet" approach may encourage other professors and departments to adopt a similar approach.

5. Encourage faculty members to work collaboratively with those staff persons in experiential education to combine a "learning to do" with a "doing to learn" approach to mastery of the subject matter. If such a procedure involves occasional visitation on the part of the faculty member to an actual work site for purposes of verifying or assessing academic competence, this may encourage a greater career education emphasis in the teaching/learning process.

6. Encourage faculty members to discover the ways in which students may use undergraduate majors in the occupational society. One of the obstacles to be overcome is the assumption held by many faculty members who teach undergraduate students that the prime use to be made of the undergraduate degree is to gain admittance to graduate school. The statistics on the over-supply of persons holding advanced graduate degrees are impressive and readily available for use in encouraging individual faculty members to consider this option.

7. Make a special effort to encourage liberal arts faculty members to learn about and appreciate the vital contributions liberal arts education makes to education as preparation for work. The need for true liberal arts education at upper management levels in the occupational society is easy to document. So, too, are the contributions of true liberal arts education to helping the individual humanize the workplace for himself or herself. Similarly, the contributions of liberal arts education to helping the individual find a humanistic meaning of work in productive use of leisure time are matters easily explained and readily accepted by liberal arts faculty members. If, simultaneously, the institution voices a commitment to providing students with a true liberal arts education—i.e., with more than a simple collection of liberal arts courses—members of the liberal arts faculty may be more favorably inclined toward embracing the career education concept.

Finally, Hoyt* identified two concerns regarding postsecondary career education in a memorandum to career education leaders/practitioners. In many ways these concerns provide a capsule view of the contemporary state of postsecondary career education. First, Hoyt noted some institutions are implementing partial career education without the necessary emphasis on the role of the faculty in the teaching-learning process and with an overemphasis on various support services. He observed the importance of institutional leadership in utilizing available funds to orchestrate the proper balance of support services and teaching faculty. Second, Hoyt observed that some postsecondary career education programs are being labeled career development programs because of an aversion to the term career education. His concern is that this mixing of terminology in education will damage the career education concept itself in the broader community. It may be noted that these two fears appeared to be well grounded in fact as revealed in the prior literature review. Many of the career interventions reviewed do not involve faculty or the teaching-learning process, and many comprehensive programs, including demonstration projects funded by the Office of Career Education, operate under the concept of career development, career preparation, or career planning rather than career education.

Summary

The practitioner oriented implications of postsecondary career education efforts to date suggest that implementation of the full treatment requires considerable organizational

*Kenneth Hoyt, personal communication, November 23, 1979.

commitment and change. But there is also evidence that such a comprehensive effort benefits students in terms of fewer problems in education-work transition, builds closer working relationships within the institution among faculty and staff, helps faculty improve classroom instruction, and builds closer relationships between the institution and off-campus constituents. Prior experience in implementing partial and full career education interventions have provided a useful agenda for further efforts in this area.

CONCLUSIONS

It is apparent that while the need for career education at the postsecondary level is recognized and accepted among many educators, and while numerous partial and comprehensive career interventions have been attempted and described, confusion about and antagonism towards the term *career education* itself, not necessarily the concept, is creating obstacles, perhaps unnecessary ones, for implementation of relevant programs. It is apparent that the very words *career education* establish barriers in obtaining teaching faculty involvement in this effort. The terms *career preparation, career development, education/work,* or *life/career* seem to stimulate less resistance with postsecondary academic and nonacademic personnel than the term *career education.* Perhaps this is the most dramatic practical implication of this review—that while career education programs and interventions in partial, incomplete form seem to be flourishing in postsecondary institutions, the term career education itself is in trouble. There would seem to be little doubt but that one remedy for this troublesome irony would be the dramatic infusion of dollars to implement career education model programs at the postsecondary level, especially in the older, larger, research oriented universities. To date, no successful comprehensive career education treatment has been reported at such an institution, and it would seem to be here that a major effort needs to be made. Harnessing the creative efforts of a multidisciplinary faculty, the technological resources of the university, the visibility of a large institution, and the potential impact on thousands of students would help to overcome some of the problems presently facing postsecondary career education. Such an infusion of research and development funds would also stimulate scholars now preoccupied with narrowly defined career intervention models to broaden their efforts to encompass "career education," especially faculty development and organizational change as they are subsumed under the career education model.

Postsecondary career educators, with the close proximity of research expertise, are in a uniquely opportune position to resolve some of the previously noted issues and questions which can be answered with empirical data. For example, studies could be conducted on (I) constituent attitudes toward the use of the term career education in comparison to some other term; (2) the comparative cost-effectiveness of infusing career education into the general curriculum versus adding career courses to academic fields of study; (3) the most effective and efficient strategies for informing and inservicing faculty about career education; (4) the differential effectiveness of alternative interventions at large research oriented universities, small colleges, and community colleges; (5) the relative effects of various marketing strategies for varied student career guidance and counseling programs, and (6) the effects of various program organizational and management delivery systems.

Perhaps the most difficult problem confronting postsecondary career education centers on leadership, and the interaction of leadership and other factors in promoting successful program interventions. Must local career education leaders have strong academic backgrounds, be faculty members, be career counseling experts, have strong administrative support from the beginning, be new or older members of the institution's staff or faculty? How should these leaders be trained? What skills should they have? What kind of funds are needed to support this leadership? Is it travel money? Student assistant money? Salary overload funds? Equipment? Space?

Consultants? If we knew more about the kinds of persons, positions, and resources most usually associated with successful career education interventions at different institutions, we could proceed more intelligently in identifying the critical elements in postsecondary career education.

The failure of postsecondary institutions, and education in general, to provide for the varied career related needs of students is an indication of failure and a lack of accountability to the public, including employers, parents, and political leaders. Perhaps the most recent indication of this shortcoming is the move by business and industry to spend billions of dollars on the career guidance and training of employees ("Education and Work" 1979). Human problems associated with education-work transitions abound in our society, and the inefficiency with which persons attempt to move within and between the worlds of education and work contribute to increased personal health problems and loss of national economic productivity. Career education, especially at the postsecondary level, seeks to address these problems, but the prospect of institutions reforming themselves to the extent necessary to implement comprehensive career education appears doubtful in the absence of bold leadership.

REFERENCES

Adams, B. "Liberal Education and the 'New Vocationalism'." *Liberal Education* 61 (1975):339-348. (ERIC No. EJ 124 514).

Adams, G. " 'Preventative' Career Counseling—Proving that It Works." *Journal of College Placement* 34 (1974): 26-33. (ERIC No. EJ 095 881).

Alwell, W. "An Evaluation of the Marymount College Cooperative Experiential Education Program." *Journal of Cooperative Education* 14 (1977):34-41. (ERIC No. EJ 180 627).

American Association of Community and Junior Colleges. *Career Education in Community Colleges: Sourcebook II.* Washington, DC: American Association of Community and Junior Colleges, 1979. (ERIC Document Reproduction Service No. ED 179 274).

A Model for Integrating Liberal and Career Education. Final Report. Allendale, MI: William James College, 1979. (ERIC Document Reproduction Service No. ED 183 796).

Arbeiter, S.; Aslanian, C.; Schmerbeck, F.; and Brickell, H. *40 Million Americans in Career Transition: The Need for Information.* New York, NY: The College Entrance Examination Board, 1978a. (ERIC Document Reproduction Service No. ED 163 178).

Arbeiter, S.; Aslanian, C.; Schmerbeck, F.; and Brickell, H. *Telephone Counseling for Home-Based Adults.* New York, NY: The College Entrance Examination Board, 1978b. (ERIC Document Reproduction Service No. ED 162 089).

Arnette, J. "Cooperative Education and Placement as an Integral Part of Academic and Career Advisement." *Journal of the American Association of Collegiate Registrars and Admissions Offic* 50 (1974):85-88. (ERIC No. EJ 100 059).

Ashcraft, C. "A Career Development Model in a University Setting." In *Facilitating Career Development: Strategies for Counselors.* Edited by R. Reardon and H. Burck. Springfield, IL: Charles Thomas, 1975.

Aslanian, C., and Schmelter, H. *Adult Access to Education and New Careers: A Handbook for Action.* New York, NY: The College Entrance Examination Board, 1980. (ERIC Document Reproduction Service No. ED 188 535).

Axelrod, V.; Drier, H.; Kimmel, K.; and Sechler, J. *Career Resource Centers.* Columbus, OH: The Ohio State University, Center for Vocational Education, 1977. (ERIC Document Reproduction Service No. ED 143 883).

Bachhuber, T., and Harwood, R. *Directions: A Guide to Career Planning.* Boston, MA: Houghton-Mifflin, 1978.

Baratz, M. "Career Education is Complimentary to Liberal Arts Education." *The College Board Review* 105 (1977): 25-26.

Barker, S. *Career Planning and Decision-Making Course for College Students. Final Evaluation Report.* Charleston, WV: Appalachia Educational Laboratory, 1979. (ERIC Document Reproduction Service No. ED 188 085).

Barker, S. "An Evaluation of the Effectiveness of a College Career Guidance Course." *Journal of College Student Personnel* 22 (1981): in press.

Barkhaus, R., and Bolyard, C. *Threads: A Tapestry of Self and Career Exploration.* Dubuque, IA: Kendall/Hunt, 1980.

Barkhaus, R., and Crandall, R. "Computer Placement at a Community Campus." *Journal of College Placement* 36 (1976):40-43. (ERIC No. EJ 132 263).

Bartsch, K., and Hackett, G. "Effect of a Decision-making Course on Locus of Control, Conceptualization, and Career Planning." *Journal of College Student Personnel* 20 (1979):230-235. (ERIC No. EJ 200 844).

Beaumont, A.; Cooper, A. C.; and Stockard, R. H. *A Model Career Counseling and Placement Program.* Bethlehem, PA: College Placement Services, Inc., 1978. (ERIC Document Reproduction Service No. ED 160 792).

Behring, D. *Career Preparation and the Liberal Arts. Report of Progress II.* Alma, MI: Alma College, 1979.

Behring, D. *Career Preparation and the Liberal Arts. Progress Report III.* Alma, MI: Alma College, 1980.

Bell, T. "The New Partnership: Education and Work." *College Board Review* 95 (1975):2-5, 20-21. (ERIC No. EJ 114 422).

Benjamin, L., and Walz, G. *Counseling Exceptional People.* Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services, 1980. (ERIC Document Reproduction Service No. ED 181 397).

Berner, A. *Career Direction and Redirection for Adults: A Handbook for Establishing an Adult Vocational Guidance Center in the Community College.* Alta Loma, CA: Chaffey College, 1979. (ERIC Document Reproduction Service No. ED 181 227).

Bethea, R. M., et al. "Career Expansion through Chemical Engineering." *Engineering Education* 70 (1979):207-209. (ERIC No. EJ 213 258).

Betz, E. "Vocational Behavior and Career Development, 1976: A Review." *Journal of Vocational Behavior* 11 (1977): 129-152. (ERIC No. EJ 165 646).

Bolles, R. *What Color is Your Parachute: A Practical Manual for Job Hunters and Career Changers.* Berkeley, CA: Ten Speed Press, 1973.

Bonar, J., and Mahler, L. "A Center for 'Undecided' College Students." *Personnel and Guidance Journal* 54 (1976): 481-484. (ERIC No. EJ 140 994).

Borland, D. "Curricular Planning through Creative Academic Advising." *NASPA Journal* 10 (1973):211-217. (ERIC No. EJ 074 207).

Brandt, J. "Model for the Delivery of Career Development Programs by the College Counseling Center." *Journal of Counseling Psychology* 24 (1977):494-502.

Brod, P., and Brod, N. "Placement Counseling: Focus on the Community College." *Journal of Employment Counseling* 11 (1974):32-36. (ERIC No. EJ 094 339).

Brolin, D. *Life Centered Career Education—A Competency-Based Approach.* Reston, VA: Council for Exceptional Children, 1978. (ERIC Document Reproduction Service No. ED 159 850).

Brolin, D., and Kolstoe, O. *The Career and Vocational Development of Handicapped Learners.* Columbus, OH: The Ohio State University, ERIC Clearinghouse on Adult, Career, and Vocational Education, 1978. (ERIC Document Reproduction Service No. ED 166 419).

Brown, S., and Whitten, C. *Cooperative Education for Graduate Students.* Boston, MA: Northeastern University, 1977. (ERIC Document Reproduction Service No. ED 146 883).

Butenhof, E. "Realistic Career Counseling: Too Little and Too Late." *Audiovisual Instruction* 22 (1977):12-15. (ERIC No. EJ 168 167).

Carney, C.; Wells, C.; and Strenfert, D. *Career Planning: Skills to Build Your Future.* New York, NY: Van Nostrand, 1981.

Carson, D. *Arapahoe Community College Career Resource Center: Visibility for Career Education. Final Report.* Littleton, CO: Arapahoe Community College, 1979.

Casella, D. *Comprehensive Career Education in a University: Reflections.* University, AL: Institute of Higher Education Research and Services, 1977. (ERIC Document Reproduction Service No. ED 142 804).

Casella, D. "Wasted Energy: College's Liberal Vocational Debate." In *Higher Education: New Directions for Leadership.* Salem, OR: Interinstitutional Consortium for Career Education, 1978. (ERIC Document Reproduction Service No. ED 168 398).

Chickering, A. "College Advising for the 1970s." *New Directions for Higher Education* 1, No. 3 (1973):69-80. (ERIC No. EJ 104 505).

Clyde, J. *Computerized Career Information and Guidance Systems.* Columbus, OH: The Ohio State University, ERIC Clearinghouse on Adult, Career, and Vocational Education, 1979. (ERIC Document Reproduction Service No. ED 179 764).

Cochran, D.; Hetherington, C.; and Strand, K. "Career Choice Class: Caviar or Caveat." *Journal of College Student Personnel* 21 (1980):402-406. (ERIC No. EJ 231 732).

Cochran, D., and Rademacher, B. "University Career Development Programming." *Journal of College Student Personnel* 19 (1978):275-281. (ERIC No. EJ 179 063).

Cooperative Educational Services. *Community Career Education Center Project. Final Project Performance Report.* Norwalk, CT: Cooperative Educational Services, 1978. (ERIC Document Reproduction Service No. ED 167 821).

Crites, J. *Career Counseling: Models, Methods, and Materials.* New York, NY: McGraw-Hill, 1981.

Cross, K. P. *The Missing Link: Connecting Adult Learners to Learning Resources.* New York, NY: The College Entrance Examination Board, 1978. (ERIC Document Reproduction Service No. ED 163 177).

Crystal, J., and Bolles, R. *Where Do I Go from Here with My Life?* New York, NY: Seabury Press, 1974.

Darrell, B. "Career Education and the College English Major." *Journal of Career Education* 3 (1976):13-20. (ERIC No. EJ 142 445).

Delos Santos, A. "Career Education and Minority Students." *Illinois Career Education Journal* 31 (1973):10-14.

Dewey, J. *Democracy and Education.* New York, NY: E. P. Dutton, 1915.

Drummond, P. "Establishing a Student-Run Career Center." *Community College Review* 4 (1977):41-46. (ERIC No. EJ 159 211).

Dunbar, Z., ed. *Selected Syllabi for Infusing Career Education into College and University Courses.* Salem, OR: Interinstitutional Consortium for Career Education, 1977. (ERIC Document Reproduction Service No. ED 157 988).

Dungy, G., et al. "Career Research—a Multidiscipline Approach." *Community College Frontiers* 7 (1978):15-19. (ERIC No. EJ 192 851).

Dwight, A. "A Model Career Decision-Making Course." *Community and Junior College Journal* 45 (1975):23-24. (ERIC No. EJ 116 359).

"Education and Work: Two Worlds or One?" *Change Magazine* 11, No. 5 (1979).

Eliason, N. C. *The Importance of Research on Transferable Skills to Female Midlife Career Changers.* Paper presented at the conference of the National Center for Research in Vocational Education, 1979, Columbus, OH. (ERIC Document Reproduction Service No. ED 171 356).

Enos, W. "The Ohlone College Story." *Journal of College Placement* 35 (1975):61-64. (ERIC No. EJ 117 265).

Evans, J., and Rector, A. "Evaluation of a College Course in Career Decision-making." *Journal of College Student Personnel* 19 (1978):163-168. (ERIC No. EJ 177 155).

Evans, N., and Donald, D. "Career Education: A Comprehensive Community College Model." *Community and Junior College Journal* 48 (1978):8-11. (ERIC No. EJ 185 207).

Farmer, H. "Career Counseling." *New Directions for Higher Education* 3 (1975):61-78. (ERIC No. EJ 126 118).

Farmer, H. "Career Counseling Implications for the Lower Social Class and Women." *Personnel and Guidance Journal* 56 (1978):467-471. (ERIC No. EJ 181 120).

Figler, H. *The Complete Job Search Handbook.* New York, NY: Holt, Rinehart and Winston, 1979.

Figler, H. *PATH: A Career Workbook for Liberal Arts Students.* Cranston, RI: Carrol Press, 1975.

Forney, D., and Adams, J. "Alumni: A Resource for Career Development." *Journal of College Placement* 37 (1976): 48-52. (ERIC No. EJ 147 827).

Franklin, P. *Summary of Existing Career Information Systems.* Eugene, OR: Oregon Career Information System, 1978.

Fretz, B. "Evaluating the Effectiveness of Career Interventions." *Journal of Counseling Psychology* 28 (1981):77-90. (ERIC No. EJ 238 360).

Fulton, G., and Morrison, R. "Share It—You'll Like It." *Journal of College Placement* 34 (1974):44-48. (ERIC No. EJ 095 883).

Gainer, H., and Stark, S. *Choice or Chance: A Guide to Career Planning.* New York, NY: McGraw-Hill, 1979.

Gamson, Z. "Is a Career Part of Life? Preparing Graduate Students for Today's Job Market." *Liberal Education* 65 (1979):462-469. (ERIC No. EJ 216 409).

Garbin, A., and Stover, R. "Vocational Behavior and Career Development, 1979: A Review." *Journal of Vocational Behavior* 17 (1980):125-170. (ERIC No. EJ 233 772).

Gidding, L. "Increasing Co-op Potential Through Principles of Career Education." *Journal of Cooperative Education* 14 (1977):66-73. (ERIC No. EJ 180 631).

Ginn, R. "Once You're in College—What?" *Independent School* 37 (1977):46-48. (ERIC No. EJ 171 017).

Goldberg, A.; Aitken, C.; Whiteneck, J.; and Cavanaugh, M. *Project ACE (Academic/Career Education). Final Report.* Denver, CO: University of Denver, 1979. (ERIC Document Reproduction Service No. ED 186 661).

Goldstein, M. *The Current State of Career Education at the Postsecondary Level.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, National Advisory Council for Career Education, 1977. (ERIC Document Reproduction Service No. ED 141 610).

Gordon, V. "The Undecided Student: A Developmental Perspective." *Personnel and Guidance Journal* 59 (1981): 433-439. (ERIC No. EJ 242 071).

Green, T. "The Undergraduate College and the World of Work." *New Directions for Higher Education* 3 (1975): 23-36. (ERIC No. EJ 117 778).

Gysbers, N., and Moore, E. *The Career Guidance Counseling and Placement Project.* Columbia, MO: University of Missouri, 1974.

Hale, L. "A Bold New Blueprint for Career Planning and Placement." *Journal of College Placement* 34 (1974):34-40 (ERIC No. EJ 092 424) and 34 (1974):68-74. (ERIC No. EJ 095 887).

Hall, R. "Thematic Issue: Career Trends in Speech Communication." *ACA Bulletin* No. 23 (1978). (ERIC Document Reproduction Service No. ED 157 101).

Hansen, L. *An Examination of the Definitions and Concepts of Career Education.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, National Advisory Council for Career Education, 1977. (ERIC Document Reproduction Service No. ED 141 609).

Hazel, E. "Group Counseling for Occupational Choice." *Personnel and Guidance Journal* 54 (1976):437-438. (ERIC No. EJ 137 644).

Healy, C. "Evaluation of a Replicable Group Career Counseling Procedure." *Vocational Guidance Quarterly* 23 (1974): 34-40. (ERIC No. EJ 103 882).

Healy, C. "Placement Services and Career Development." *New Directions for Community Colleges* 4, No. 4 (1976): 51-54. (ERIC No. EJ 151 702).

Heffernan, J. "Commentary." *Journal of Higher Education* 44 (1973):450-452. (ERIC No. EJ 079 106).

Heppner, P., and Krause, J. "A Career Seminar Course." *Journal of College Student Personnel* 20 (1979):300-305. (ERIC No. EJ 209 132).

Herr, E. "The Roots of Career Education." *The College Board Review* 105 (1977):6-17, 32-33. (ERIC No. EJ 170 153).

Hicks, L. *Empowering Diversity: Resources for Developing Career Counseling and Placement Programs for College Students with Physical Disabilities.* Tallahassee, FL: United Cerebral Palsy of Florida, 1981.

Hoffman, S., and Cochran, D. "Groups in Career Counseling." In *Facilitating Career Development: Strategies for Counselors.* Edited by R. Reardon and H. Burck. Springfield, IL: Charles Thomas, 1975.

Holcomb, J. *College Courses in Careers: An Historical and Evaluative Treatment.* Unpublished paper. Pittsburgh, PA: Duquesne University, 1966.

Holcomb, T., and O'Toole, W. "Bridging the Gap in Higher Education: A World of Work Experience for College Educators." *Journal of Career Education* 6 (1980):196-203. (ERIC No. EJ 224 818).

Holland, J.; Magoon, T.; and Spokane, A. "Counseling Psychology: Career Interventions, Research and Theory." *Annual Review of Psychology* 32 (1981):279-305. (ERIC Document Reproduction Service No. ED 198 049).

Hoyt, K. *Application of the Concept of Career Education to Higher Education: An Idealistic Model.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, Office of Career Education, 1976a. (ERIC Document Reproduction Service No. ED 130 085).

Hoyt, K. *Considerations of Career Education in Postsecondary Education. Monographs on Career Education.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, Office of Career Education, 1978. (ERIC Document Reproduction Service No. ED 164 984).

Hoyt, K. *An Introduction to Career Education: A Policy Paper of the U.S. Office of Education.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, Office of Career Education, 1974. (ERIC Document Reproduction Service No. ED 097 588).

Hoyt, K. *A Primer for Career Education. Monographs on Career Education.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, Office of Career Education, 1977. (ERIC Document Reproduction Service No. ED 145 252).

Hoyt, K. *Refining the Career Education Concept. Monographs on Career Education.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, Office of Career Education, 1976b. (ERIC Document Reproduction Service No. ED 132 427).

Hurn, C. "The Prospects for Liberal Education: A Sociological Perspective." *Phi Delta Kappan* 60 (1979):630-33. (ERIC No. EJ 201 238).

Jacobson, T. "Career Resource Centers." In *New Imperatives for Guidance.* Edited by G. Walz and L. Benjamin. Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services, 1978. (ERIC Document Reproduction Service No. ED 167 940).

Johnson, J.; Smither, R.; and Holland, J. "Evaluating Vocational Interventions: A Tale of Two Career Development Seminars." *Journal of Counseling Psychology* 28 (1981):180-183.

Johnson, R. "Life Planning and Life Planning Workshops." *Personnel & Guidance Journal* 55 (1977):546-549. (ERIC No. EJ 160 194).

Johnson, R., and Mayberry, M. "GRAD II: An Impact Study." *Journal of College Placement* 41 (1981):58-62. (ERIC No. EJ 240 026).

Katz, D., and Flugman, B. *Community College Support Service and Activity Program for the Disabled Student.* New York: City University of New York, 1977. (ERIC Document Reproduction Service No. ED 153 671).

Katz, M. "SIGI: An Interactive Aid to Career Decision-Making." *Journal of College Student Personnel* 21 (1980):34-39. (ERIC No. EJ 217 254).

Kaufman, M. "Alumni: Career Advisors." *Journal of College Placement* 37 (1976):53-55. (ERIC No. EJ 147 828).

Kjos, D., and Donahue, P. "Turning on for the Older Job Seeker." *Community and Junior College Journal* 50 (1979): 44-47. (ERIC No. EJ 218 025).

Knefelkamp, L., and Slepitza, R. "A Cognitive Developmental Model of Career Development—An Adaptation of the Perry Scheme." In *Career Counseling,* edited by J. Whiteley and A. Resnikoff. Monterey, CA: Brooks/Cole, 1978.

Koehn, S. "More Than One Way to Teach Fishing: Another Way to Look at Career Planning Programs." *Personnel & Guidance Journal* 55 (1977):608-610.

Koehn, S. "Who's Doing What? An Update Survey of Career Planning Programs." *Journal of College Student Personnel* 19 (1978):523-526. (ERIC No. EJ 190 081).

Krolik, J., and Nelson, J. "Nonacademic Career Counseling for Graduate Students." *Personnel & Guidance Journal* 57 (1978):126-127. (ERIC No. EJ 188 432).

Krupka, L., and Vener, A. "Career Education and the University: A Faculty Perspective." *Personnel & Guidance Journal* 57 (1978): 112-114. (ERIC No. EJ 188 429).

LaGuardia Community College: A Model for a Comprehensive Career Educational Approach to Higher Learning. Final Report and Evaluation Report. Long Island City, NY: LaGuardia Community College, 1977. (ERIC Documen Reproduction Service No. ED 167 734-735).

LaMotte, G. "Michigan Computer Program Matches Jobs and Job Seekers." *American Vocational Journal* 52 (1977): 43-46. (ERIC No. EJ 169 173).

Lee, E. "Continuing Career Exploration in College." *Career Education Digest* 2 (1974):26-32. (ERIC No. EJ 107 088).

Leiterman-Stock, P. *Reduction of Sexual Stereotyping and Bias with Regards to Career Choice.* Bozeman, MT: Montana State University, 1979. (ERIC Document Reproduction Service No. ED 189 434).

Listerman, T. "What's Next?—Careers for Physics Students." *American Journal of Physics* 41 (1973):1049-1051. (ERIC No. EJ 083 354).

Lockhart, V. "Reentry Education Revisited: Theory and Practice." *New Directions for Community Colleges* 7, No. 3 (1979):49-54. (ERIC No. EJ 214 780).

Luther, R., and Smith, V. "A Functional Model for Career Development." *NASPA Journal* 11 (1974):60-66. (ERIC No. EJ 103 947).

Marland, S. *Career Education: A Proposal for Reform.* New York: McGraw-Hill, 1974.

Marland, S. "Liberal Education and Work." *New Directions for Education and Work* No. 1 (1978):39-46. (ERIC No. EJ 203 383).

Maston, R. "Careers of the Future: Education for Preferable Futures." *Liberal Education* 62 (1976):245-66. (ERIC No. EJ 143 126).

MacArthur, J. "Career Services for University International Students." *Vocational Guidance Quarterly* 29 (1980): 178-181. (ERIC No. EJ 239 999).

McCuiston, R., and Walker, C. "Career Education in Junior College Science and Mathematics." *School Science and Mathematics* 76 (1976):321-329. (ERIC No. EJ 139 936).

McGovern, T. "Development of a Career Planning Program for Undergraduate Psychology Majors." *Teaching of Psychology* 6 (1979):183-184. (ERIC No. EJ 211 702).

McGovern, T., and Tinsley, H. "A Longitudinal Investigation of the Graduate Assistant Work Training Experience." *Journal of College Student Personnel* 17 (1976):130-133. (ERIC No. EJ 142 502).

McLean, J., and Loree, M. *Comprehensive Career Education in a University: Evaluation.* University, AL: Institute of Higher Education Research and Services, 1976. (ERIC Document Reproduction Service No. ED 132 396).

McLoughlin, M.; Wyman, E.; Patton-Crowder, C.; and Ball, P. "Sex-affirmative Career Development Interventions in Higher Education." *Journal of Career Education* 5 (1978):133-144. (ERIC No. EJ 202 652).

Melton, D. *Community-based Career Guidance Practices.* Bradenton, FL: Manatee Junior College, 1980. (ERIC Document Reproduction Service Nos. ED 197 078-080).

Menning, A., and Whittmayer, C. "Administrative and Program Provisions for Undecided Students." *Vocational Guidance Quarterly* 28 (1979):175-81. (ERIC No. EJ 217 363).

Miller, S. *Teaching Career/Life Planning: An Inservice Training Module for Teaching Affective Career/Life Planning Skills.* Los Angeles, CA: Community College District, 1980. (ERIC Document Reproduction Service No. ED 183 233).

Moed, M. "Introducing Career Education Concepts into the Classroom." *Community and Junior College Journal* 48 (1978):30-33. (ERIC No. EJ 185 211).

Nolting, E., and Saffian, S. "A New Direction for Student Affairs on Large Campuses: The Information and Referral Service." *NASPA Journal* 10 (1972):142-149. (ERIC No. EJ 075 086).

O'Neil, J.; Ohlde, C.; Barke, C.; Prosser-Gelwick, B.; and Garfield, N. "Research on a Workshop to Reduce the Effects of Sexism and Sex-Role Socialization on Women's Career Planning." *Journal of Counseling Psychology* 27 (1980): 355-62. (ERIC No. EJ 229 728).

O'Toole, W. "The Hidden Agenda of Staff Development at the University Level." *Journal of Career Education* 6 (1979):143-152. (ERIC No. EJ 217 199).

Papke, D. "Doubleknit Showmanship—The New Look in College Placement." *Change* 8 (1976):15-18. (ERIC No. EJ 150 424).

Paradise, L. "AVOD: Vocational Direction for Liberal Arts Students." *Vocational Guidance Quarterly* 24 (1976): 271-273. (ERIC No. EJ 135 709).

Parker, C.; Brunch, S.; and Hagberg, R. "Group Vocational Guidance with College Students." *Vocational Guidance Quarterly* 23 (1974):168-172. (ERIC No. EJ 112 250).

Parker, V. "Placement Programs: A New Philosophy." *Community and Junior College Journal* 45 (1975):30-34. (ERIC No. EJ 111 386).

Parsell, R., and Thompson, G. "The Job Club." *Journal of College Placement* 39 (1979):63-65. (ERIC No. EJ 204 205).

Permaul, J. "Is There a Role for Career Education in Colleges and Universities?" *Education Horizons* 51 (1973):184-6. (ERIC No. EJ 085 591).

Peterson, M., and Vetter, L. *Sex Fairness in Career Education.* Columbus, OH: The Ohio State University, ERIC Clearinghouse on Career Education, 1977. (ERIC Document Reproduction Service No. ED 149 179).

Polson, C., and Jurich, A. "The Departmental Academic Advising Center: An Alternative to Faculty Advising." *Journal of College Student Personnel* 20 (1979):249-253. (ERIC No. EJ 200 847).

Powell, C., and Kirts, D. *Career Services Today.* Bethlehem, PA: College Placement Council, 1980. (ERIC Document Reproduction Service No. ED 188 056).

Prince George's Community College. *Student Advisement Model.* Largo, MD: Prince George's Community College, 1979. (ERIC Document Reproduction Service No. ED 171 355).

Programs to Combat Stereotyping in Career Choice. Palo Alto, CA: American Institutes for Research, 1980. (ERIC Document Reproduction Service No. ED 187 886).

Rayman, J., and Bowlsbey, J. "DISCOVER: A Model for a Systematic Career Guidance Program." *Vocational Guidance Quarterly* 26 (1977):3-12. (ERIC No. EJ 165 606).

Reardon, R. "The Counselor and Career Information Services." *Journal of College Student Personnel* 14 (1973):495-500.

Reardon, R. *University Career Development Services: A Functional Collaboration.* Paper presented at the American College Personnel Association, 1980, Boston.

Reardon, R.; Domkowski, D.; and Jackson, I. "Career Center Evaluation Methods: A Case Study." *Vocational Guidance Quarterly* 29 (1980):150-158. (ERIC No. EJ 239 995).

Reardon, R., and Regan, K. "Process Evaluation of a Career Planning Course." *Vocational Guidance Quarterly* 29 (1981):265-269.

Reardon, R.; White, P.; Carlson, A.; and Barker, S. *A Self-directed Career Planning Program for the Visually Disabled. Final Report.* Tallahassee, FL: Florida State University, 1978. (ERIC Document Reproduction Service No. ED 166 590).

Reardon, R.; Zunker, V.; and Dyal, M. "The Status of Career Planning Programs and Career Centers in Colleges and Universities." *Vocational Guidance Quarterly* 28 (1979):154-159. (ERIC No. EJ 217 360).

Resources for Change. Guides to Projects. Washington, DC: U.S. Department of Health, Education, and Welfare, Fund for the Improvement of Postsecondary Education, 1976-1980. (ERIC Document Reproduction Service Nos. ED 131 764, ED 148 277, ED 180 331, and ED 192 711).

Richardson, J., and Thomas, A. *Evaluation of "Women in Careers" Program.* Northfield, MN: St. Olaf College, 1978. (ERIC Document Reproduction Service No. ED 170 481).

Riley, G. "Goals of a Liberal Education: Making the Actual and Ideal Meet." *Liberal Education* 65 (1979):436-444. (ERIC No. EJ 216 406).

Roach, D. *Implementing a Telephone-Based Career Counseling Service.* Tallahassee, FL: Florida State University, 1981.

Rock, M. "An Advisor Speaks to Aspiring Physicians." *Intellect* 106 (1977):76-77. (ERIC No. EJ 169 000).

Rogers, T., and Seeley, J. *Infusing Career and Liberal Arts Education at William James College. Final Evaluation Report.* Allendale, MI: Grand Valley State College, 1979. (ERIC Document Reproduction Service No. ED 183 797).

Rosen, D.; Olson, L.; and Cox, K. *Masters of Reality: Certificate or Performance?* Washington, DC: National Student Education Fund, 1977. (ERIC Document Reproduction Service No. ED 138 810).

Rosenberg, H. "Games the Vocationally Undecided Play." *Personnel & Guidance Journal* 56 (1977):229-234.

Ryan, C.; Drummond, R.; and Sutton, J. *University-Based Career Education. Final Report, 1977-78.* Orono, ME: University of Maine, 1978. (ERIC Document Reproduction Service No. ED 183 818).

Ryan, C.; Drummond, R.; and Sutton, J. "Evaluation in Career Education: A Model for Higher Education." *Journal of Research and Development in Education* 12 (1979):21-28. (ERIC No. EJ 209 044).

Sampson, J. "Using College Alumni as Resource Persons for Providing Occupational Information." *Journal of College Student Personnel* 21 (1980):172.

Sander, D., and Wolff, W. "Computer-assisted Career Development for College Students." *NASPA Journal* 12 (1975): 257-261. (ERIC No. EJ 123 912).

Sexton, R. *Experiential Education and Community Involvement Practices at the Postsecondary Level: Implications for Career Education.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, National Advisory Council for Career Education, 1976. (ERIC Document Reproduction Service No. ED 138 771).

Sharf, R.; Wilson, M.; and Townsend, E. "A Career Development Model." *Journal of College Placement* 40 (1979): 43-49. (ERIC No. EJ 217 212).

Sheffer, H. "Directed Corrections or Corrected Directions?" *Community and Junior College Journal* 44 (1973):22-24. (ERIC No. EJ 089 875).

Shertzer, B. *Career Planning: Freedom to Choose.* Boston, MA: Houghton-Mifflin, 1977.

Shingleton, J., and Bao, R. *College to Career.* New York: McGraw-Hill, 1977.

Simpson, L., and Harwood, R. "Placement: From Employment Bureau to Career Development Center." *NASPA Journal* 10 (1973):225-230. (ERIC No. EJ 074 958).

Southern Regional Education Board. "Faculty Involvement in Career and Academic Advisement." In *Issues in Higher Education,* No. 10. Atlanta, GA: Southern Regional Education Board, 1977. (ERIC Document Reproduction Service No. ED 149 667).

Spector, I., and Evans, A. "Awareness Is the Key to Success." *Community and Junior College Journal* 48 (1978):36-8. (ERIC No. EJ 185 212).

Stakelon, A., and Magisos, J. *Sex Stereotyping and Occupational Aspiration: An Annotated Bibliography.* Columbus, OH: The Center for Vocational Education, 1975. (ERIC Document Reproduction Service No. ED 118 926).

Stephenson, J. "Efficiency and Vocationalism—Renewed Challenges to Liberal Education." *Liberal Education* 60 (1974):385-399. (ERIC No. EJ 106 125).

Stilwell, W., and Schulker, S. "Facilities Available to Disabled Higher Education Students." *Journal of College Student Personnel* 14 (1973):419-424. (ERIC No. EJ 084 209).

Sullivan, B., and Neely, J. "General Studies at Gaston Includes Career Education." *Career Education Digest* 2 (1974). 17-18. (ERIC No. EJ 094 288).

Super, D., and Hall, D. "Career Development: Exploration and Planning." *Annual Review of Psychology* 29 (1978): 333-372. (ERIC Document Reproduction Service No. ED 150 066).

Synthesizing the World of Work and the Liberal Arts. Final Report. Denver, CO: University of Denver, 1978. (ERIC Document Reproduction Service No. ED 185 252).

Taylor, N. *A Career Information Model Applicable to Undergraduate Sociology Majors.* Fort Lauderdale, FL: Nova University, 1978. (ERIC Document Reproduction Service No. ED 167 060).

Tolbert, E. *Counseling for Career Development.* 2nd ed. Boston, MA: Houghton-Mifflin, 1980.

Touchton, J.; Wertheimer, L.; Cornfield, J.; and Harrison, K. "Career Planning and Decision-Making: A Developmental Approach to the Classroom." *The Counseling Psychologist* 6 (1977):42-47, 77. (ERIC No. EJ 165 487).

Valley, J. *Career Education of Adults.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Career Education, National Advisory Council for Career Education, 1977. (ERIC Document Reproduction Service No. ED 141 611).

Vener, A., and Krupka, L. "Academic Advising/Career Counseling and the "New" College Student." *Journal of College Student Personnel* 21 (1980):270-274.

Vermilye, D., ed. *Relating Work and Education.* San Francisco, CA: Jossey-Bass, 1977.

Vickers, D., and Heffernan, J. "The Learning Consultant: A Response to the External Degree Learner." *Journal of Higher Education* 44 (1973):439-450. (ERIC No. EJ 079 105).

Walsh, E. "Revitalizing Academic Advisement." *Personnel & Guidance Journal* 57 (1979):446-449. (ERIC No. EJ 200 921).

Walsh, P. "Directions for the Future." *New Directions for Community Colleges* 7, No. 3 (1979):87-89. (ERIC No. EJ 214 785).

Walsh, W. "Vocational Behavior and Career Development, 1978: A Review." *Journal of Vocational Behavior* 15 (1979):119-162. (ERIC No. EJ 209 212).

Walter-Samli, J., and Samli, A. "A Model of Career Counseling for International Students." *Vocational Guidance Quarterly* 28 (1979):48-55. (ERIC No. EJ 215 673).

Walz, G., and Benjamin, L. *Counseling Adults for Life Transitions.* Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services, 1980. (ERIC Document Reproduction Service No. ED 181 396).

Watkins, E. "Integrating the Life Development Concept into the Curriculum." *New Directions for Education, Work, and Careers,* No. 6. San Francisco, CA: Jossey-Bass, 1979. (ERIC No. EJ 206 782).

Watkins, J., and Landrum, J. "Don't Tell Me: Show Me." *Journal of College Placement* 37 (1976):56-60. (ERIC No. EJ 147 829).

Weinstein, M. "The Free Employment Service for College Students." *Occupational Outlook Quarterly* 23 (1979): 10-13. (ERIC No. EJ 215 588).

Westbrook, B. *Career Development Needs of Adults: How to Improve Career Development Programs.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education, National Advisory Council for Career Education, 1977. (ERIC Document Reproduction Service No. ED 147 499).

White, P.; Reardon, R.; Barker, S.; and Carlson, A. "Increasing Career Center Accessibility for the Blind." *Personnel & Guidance Journal* 58 (1979):292-295.

Wilhelm, S. "Computer-based Guidance Systems: Are They Worth It?" *Journal of College Placement* 38 (1978):65-69. (ERIC No. EJ 177 205).

Wisconsin State Department of Public Instruction. *Training University Faculty and Aspiring Educators Enrolled in Pre-Service for Career Education.* Madison: Wisconsin State Department of Public Instruction, 1978. (ERIC Document Reproduction Service No. ED 173 625).

Woodie, S., and Bauer, M. "Serving Rural Women: A College Community Partnership." *New Directions for Community Colleges* 7, No. 3 (1979):63-69. (ERIC No. EJ 214 782).

Woodring, P. "Vocational Education: How Much, What Kind, and When?" *Phi Delta Kappan* 60 (1979):644-646. (ERIC No. EJ 201 242).

Zagoren, A. "Getting into Externships." *CASE Currents* 5 (1979):30-32. (ERIC No. EJ 203 405).

Zunker, V. *Career Counseling: Applied Concepts of Life Planning.* Monterey, CA: Brooks/Cole, 1981.

Zytowski, D. "Vocational Behavior and Career Development, 1977: A Review." *Journal of Vocational Behavior* 13 (1978):141-162. (ERIC No. EJ 192 136).